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Does the Tuition Opportunity Program for Students (TOPS) promote access to postsecondary education for students from low-income families in Louisiana?

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DOES THE TUITION OPPORTUNITY PROGRAM FOR STUDENTS (TOPS)
PROMOTE ACCESS TO POSTSECONDARY EDUCATION FOR STUDENTS FROM
LOW-INCOME FAMILIES IN LOUISIANA?

A DISSERTATION

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in
The Department of Educational Theory, Policy, and Practice

By
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May 2008

DEDICATION

This dissertation is dedicated to my wife, Claudia Kay Thurber who encouraged me to pursue my dreams. This dissertation is also dedicated to my late father, John L. Thurber, who taught me to live a good life, fight the good fight to help others who might be less fortunate than I am, and to never, never give up on myself, my family, or on mankind; and to my mother, Kathryn M. Thurber, who would often remind me that by completing a Ph.D. at Louisiana State University I would set a good example for my children to follow, an example that might live on for generations, in my children and in their offspring. Lastly, this dissertation is dedicated to my two sons, Frederick Dexter Thurber, and Michael Cody Thurber, who too often had to put-up with their father doing homework as opposed to spending time with them.

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ABSTRACT

Louisiana concentrates its postsecondary financial aid funding in merit-based aid programs, as opposed to need-based aid programs. This study illuminates the distribution of Louisiana's merit-based financial aid program, Louisiana's Tuition Opportunity Program for Students (TOPS), to students from difference socioeconomic backgrounds by describing the basic characteristics of TOPS recipients at Louisiana State University, the University of Louisiana at Lafayette, and selected Louisiana two-year postsecondary institutions. This study gives evidence to indicate that Louisiana's TOPS program disproportionably benefits students from middle and upper income families, most of whom could afford college expenses without receiving a TOPS awards. In addition, this study found that the TOPS award methodology is systemically bias against African Americans, because TOPS award methodology includes biased standardized testing as a requirement that all recipients must meet in order to qualify for a TOPS award.

CHAPTER ONE: INTRODUCTION

Chapter One addresses student financial aid programs that are available to students who seek access to U.S. public postsecondary institutions; the metamorphosis of student financial aid programs from primarily need based financial aid programs to a combination of need based financial aid programs and merit based financial aid programs; and, the problems associated with Louisiana's adoption of need based financial aid, in the form of Louisiana's Tuition Opportunity Program for Students (TOPS).

In addition to a review of financial aid programs available to postsecondary students, their metamorphosis from primarily need based financial aid programs to a combination of need based financial aid programs and merit based financial aid programs, and the consequences of the TOPS programs in Louisiana, Chapter One list the research questions, the theoretical perspective and the research significance that guides this study.

The Civil Rights Project at Harvard University has uncovered considerable weaknesses in the combined financial support systems of national and state governments to provide funding to low-income students who seek access to postsecondary educational institutions (Heller & Marin, 2002). As states devote more dollars to the funding of merit based financial aid programs, as opposed to the funding of need based financial aid

programs, low-income students might be unable to negotiate financial barriers to postsecondary access (Geske, 2006). Nevertheless, low-income students who manage to acquire funds to attend a Louisiana public postsecondary institution might not be able to afford the higher tuitions of Louisiana's research universities, such as Louisiana State University (\$3880 per academic year) and the University of Louisiana at Lafayette (\$2928 per academic year). Thus, Louisiana's low-income students might be relegated to less selective four-year Louisiana public universities, such as McNeese State University (\$2368 per academic year), Nicholls State University (\$2454 per academic year), or Northwestern State University (\$2625 per academic year) and two-year public postsecondary institutions, such as Louisiana State University at Eunice (\$1456 per academic year), Bossier Parish Community College (\$1394 per academic year), or Delgado Community College (\$1534 per academic year).

The goal of early financial aid, which began in earnest in the 1960s, was to reduce disparities in postsecondary participation among students from different socioeconomic groups (Heller, 2002). With the passage of the Higher Education Act (HEA) of 1965 and the HEA reauthorization in 1972, the federal government increased its participation in student financial aid programs to promote equity of postsecondary access by implementing the Basic Educational Opportunity Program, the

predecessor to Pell Grants (Heller, 1999; Mumper, 1996).

Nevertheless, according to Heller (2002), the federal government's role to ensure equal opportunity is subordinate to the role that states play.

Establishing and operating a public postsecondary system is a state responsibility (Bergquest, 1995). To encourage states to increase low-income student participation in higher education, in 1972 congress established the State Student Incentive Grant programs (SSIG), which made available matching funds to encourage states to develop and/or expand state need based grants. Financial aid based on financial need allows students from lower socioeconomic levels to overcome financial barriers to enter into the academy (Heller, 2002). In particular, minority students rely on financial aid. Recent data from the United States Bureau of the Census (2002) indicated that in 2000 the median income of white families with at least one child (\$60,226) was almost twice that of black families (\$30,841) and Hispanic families (\$33,288).

Before the late 1980s, merit based financial aid represented a small portion of state sponsored aid (McPherson and Schapiro, 1998). Today's trend for states to contribute to merit based financial aid programs, instead of funding need based aid programs, could undermine the original goal of state financial aid programs, which was to create equality of

postsecondary access for all high school graduates (Heller and Marin, 2002). Even though federal financial aid, such as Pell grants, help low-socioeconomic status (low-SES) students overcome financial barrier to entry, federal aid alone does not provide enough financial aid to ensure access for all high school graduates seeking entrance into a postsecondary institution. As such, low-SES high school graduates seeking postsecondary access depend upon state assistance to overcome financial barriers.

State Merit-Based Scholarship Programs

In the 2004-05 academic year, states awarded \$6.7 billion of student aid. Of this \$6.7 billion in student aid, states awarded \$6.4 billion as undergraduate grant aid, which was comprised of \$1.7 billion of non-need based grant aid and \$4.7 billion in need based grant aid. Of the \$4.7 billion in need based grant aid, eight states awarded \$3.1 billion (California, Illinois, Indiana, New Jersey, New York, Ohio, Pennsylvania, and Texas) (NASSGAP, 2006). Of these states, none operated broad based merit scholarship programs.

Collectively, the 12 states listed as having broad based merit scholarship programs, by The Civil Rights Project at Harvard University, awarded \$506 million in need based financial aid. As illuminated by Heller and Marin (2002), the twelve states with broad based state merit scholarship programs focused

student aid resources on the funding of state merit based programs, instead of funding need based programs. This scenario continues today.

Rubenstein and Scafidi (2002), Dynarski (2000), and Cornwell and Mustard (2002) examined merit scholarship programs in the United States and discovered that scholarship distribution was awarded disproportionately to student populations from the middle to upper SES, and to students who are predominantly white. Geske (2006) points out that many states with merit based scholarship programs have shifted their focus from assisting academically qualified low-SES students to minimizing postsecondary educational cost for middle- and high-SES students.

Nevertheless, Singell, Waddell and Curs (2004) used fixed-effect analysis to examine unpublished panel data on the number and level of Pell awards to Southern universities along with detailed institutional data from the National Center of Educational Statistics to determine that despite the smaller distribution of scholarship funds awarded to low-SES high school graduates, merit based scholarships increased access for low-SES students enrolling in 2-year community colleges and less selective 4-year colleges.

Merit based scholarship programs use different criteria for awarding scholarships. Of the 12 states listed as having broad

Table 1 States with merit based funding programs greater than 1 million dollars

	Need based Aid	Non-need based Aid
State	(million dollars)	(million dollars)
Florida	93.8	271.6
Georgia	1.5	457.5
Kentucky	75.4	84.7
Louisiana	1.5	114.8
Michigan	92.0	105.1
Mississippi	2.1	19.4
Missouri	24.3	32.8
Nevada	9.3	10.0
New Mexico	14.3	43.3
South Carolina	45.8	196.9
Tennessee	122.0	7.2
West Virginia	24.0	31.2
Total	505.9	1,395.3

Note: Undergraduate aid (2003-04), inclusive of LEAP (Leveraging Educational Assistance Partnership) and SLEAP (Special Leveraging Educational Assistance Partnership) funds. (NASSGAP, 2006)

based merit scholarship programs by the Civil Rights Project at The Civil Rights Project at Harvard University, Florida, Kentucky, Louisiana, Mississippi, Missouri, South Carolina, Tennessee, and West Virginia require scholarship recipients to score a set minimum on the Scholastic Assessment Test (SAT) or American College Testing (ACT) standardized test. This systemic

approach to state scholarship distribution might be biased against high school graduates from low-income families, and in particular minority students (Geske, 2006). Bowen and Bok (1998) explain that nationally a much lower percentage of African Americans, as compared to the percentage of whites, score high on the SAT, and a greater percentage of African Americans, as compared to whites, score low on the SAT.

Data from the College Board Seniors National Report (2002) shows co-linearity between family income and the SAT scores of test takers. Geske (2006) concludes that students from families in the top income quartile have a greater probability of meeting merit based scholarship requirements. The findings from the College Board Seniors National Report (2002) agree with Geske (2006) that for states to set minimum SAT/ACT test score requirements that students must achieve to receive merit based scholarship awards is biased against high school graduates from low-SES families. Students' SES level should not be a determining variable as to who participates in a postsecondary education. Students' ability and motivation to succeed in a postsecondary environment should be the determining factor embedded in college participation policy.

Nevertheless, because there is a wide variance in the quality of high school curricula between secondary schools within a state, standardized tests serve as normalized

measurements of students' college preparedness (Geske, 2006). Many students perform well academically in high school; however, fail to score well on the ACT/SAT tests. States requiring minimum standardize test scores for students to qualify for merit based awards reduce their merit based award expenses by limiting the number of award recipients to students who prove their college preparation through their performance on the ACT or SAT standardize test.

The distribution of merit based scholarships from states that require students to meet minimum SAT or ACT scores requirements is biased against low-SES students and minorities (Inoue and Geske, 2006). Inoue and Geske (2006) found that the distribution of scholarship funds from Louisiana's TOPS, are disproportionably awarded to students from middle and upper SES families, most of whom are white.

Statement of the Problem

This study seeks to describe the distribution of Louisiana's primary postsecondary financial aid program, TOPS, for the 2003 cohort of Louisiana high school graduates who qualified for a TOPS award. In the 2004-05 academic year, Louisiana distributed more than \$114 million to recipients of TOPS awards, most of whom had the financial means to attend college without the TOPS merit based scholarship. TOPS has not done enough to improve postsecondary participation among

Louisiana's low-SES students (Geske, 2006). This study seeks to measure the probability of students from different socioeconomic strata, who qualified for TOPS awards in academic year 2003-04, to acquire funds equal to the cost of attendance (COA) at Louisiana State University at Baton Rouge (LSU), the University of Louisiana at Lafayette (ULL), or a Louisiana public two-year postsecondary institution without having to resort to loans, which according to research conducted by McPherson and Schapiro (2001) are negatively correlated with low-income students. This study focuses on students who were TOPS recipients for the fall 2003 semester in baccalaureate degree programs at Louisiana's two largest public postsecondary institutions, Louisiana State University at Baton Rouge (LSU) and the University of Louisiana at Lafayette, (ULL) because students who attended Louisiana's two largest public four-year baccalaureate institutions are more likely to have similar goals and aspirations than would a sample of students from all Louisiana postsecondary institutions. In order to measure contrast among fall semester 2003 TOPS recipients who attended Louisiana public postsecondary institutions, this study will also include an aggregate of students who attended Louisiana public two-year postsecondary institutions.

Even when TOPS scholarships are added to other federal and state financial aid, many students still do not have funds equal

to or greater than the cost of attendance at a Louisiana public postsecondary institution. In order to expose those students who still have financial need after the inclusion of students' expected family contribution (EFC), TOPS, Federal Supplemental Educational Opportunity Grants (FSEOGs), Pell Grants, and Leveraging Educational Assistance Partnership Program (LEAP) grants, students were divided into five income levels based on students' parental income. Described in table 2 is a criterion model to categorize students into five levels based on parental income.

Table 2 TOPS Recipients Income Classification

Income Classification	Parental Income
Low-income	less than \$30,000
Lower-middle-income	\$30,000 - \$44,999
Middle-income	\$45,000 - \$74,999
Upper-middle-income	\$75,000, - \$99,998
High-income	\$99,999 or more

Economic theories hold that the contributing variables in this study would be cost of attendance (COA) and available personal, federal, and state financial aid (St. John & Hu, 2001). Sociological theories hold that the contributing variables in this study would be college preparation, parental income, race and ethnicity (St. John & Hu, 2001). As such, this study will explore the variance in the dependent variable, the

probability of the 2003 TOPS cohort of high school graduates to acquire funds equal to or greater than the cost of attendance (COA) at LSU, ULL, or a Louisiana two-year postsecondary institution, explained by the independent variables of race/ethnicity, parental income, ACT scores, and high school grade point average. By categorizing students based upon parental income and analyzing their probability to acquire funding equal to the cost of attendance at LSU, ULL, and Louisiana public two-year postsecondary institutions this study intends to illuminate groups of students who still have unmet financial need, even after taking all personal, federal, and state financial aid into account.

In particular, this study will compare the unmet financial need of low-income TOPS recipients who were admitted as undergraduate students to LSU, ULL, and Louisiana public two-year postsecondary institutions in academic year 2003-04, to the unmet financial need of students in the other income classifications.

Research Questions

The primary research questions guiding the study are:

- What are the basic characteristics of TOPS recipients? How do race/ethnicity, parental income, ACT scores, and high school grade point average affect TOPS scholarship distribution?

- How do TOPS scholarship recipients at LSU and ULL compare to TOPS scholarship recipients at Louisiana public two-year postsecondary institutions?
- For which students do TOPS scholarships fill the void of unmet financial need to attend LSU, ULL, or a Louisiana public two year postsecondary institution? For which students do TOPS scholarships fail to fill the void of unmet financial need for students attending LSU, ULL or a Louisiana public two-year postsecondary institution?
- How has the cost of attendance, expected family contribution and financial aid changed since the inception of TOPS for students who attend LSU, ULL, or a Louisiana public two-year postsecondary institution?

Theoretical Perspective

Researchers can examine college participation from many different theoretical perspectives; however, economics and sociology dominate college access research. Economic studies examine the student demand for higher educational services, the price of postsecondary education, and the investment in human capital, whereas, sociological studies focus on access and attainment. Most sociological studies on higher educational access explore the relationship of student background variables such as, socioeconomic and family variables (Blau & Duncan, 1967; Breiger 1995; Haveman 2000; Elman & O'Rand 2004; Wysong &

Perrucci 2007), academic ability and family income (Sewell & Shah, 1967; Hearn 1991; Marks 2005; London 2006), and personal aspirations (Sewell & Hauser, 1975; Teachman & Paasch 1998; Temple & Polk 1986).

Most student aid and demand research find their origin in human capital theory (Schultz, 1961 and Becker, 1964). Human capital theory suggests that education is an investment that yields financial returns to the individual acquiring it and also to society. Student demand theory argues that demand for higher education decreases as the cost of acquiring a higher education increases and the demand for higher education increases as the cost of acquiring a higher education decreases (Becker 1964). As such, any financial instrument designed to minimize financial barriers to higher educational participation, such as financial aid, should increase the demand for higher education. Many studies have focused on demand theory by examining how socioeconomic status, financial aid, and educational cost affect student access into the academy (Heller, 1999; Blakemore & Low, 1983; Heller, 1997; Leslie & Brinkman, 1987; Mumper, 1996; Orfield, 1992; Phillips, 1990).

Definition of Terms

1. ACT (American College Testing Service): a standardized college entry exam used by students to fulfill college application requirements. Louisiana's Tuition Opportunity

Program uses the highest composite ACT score, or the equivalent SAT score, achieved by an applicant to determine award eligibility.

2. COA (Cost of Attendance): The total dollar amount that it will cost a student to attend a particular postsecondary institution for one academic year. The COA is determined each academic year by each postsecondary institutions in compliance with Title IV of the Higher Education Act of 1965, as amended. COA includes tuition, fees, on-campus room and board, or housing and food allowance for off-campus students, and allowances for books, supplies, transportation, childcare, cost related to a disability, and miscellaneous expenses.

3. SAT (Scholastic Aptitude Test): a standardized college entry exam used by students to fulfill college application requirements. In Louisiana, the SAT test score is used, in place of the ACT, by Louisiana's Tuition Opportunity Program to determine award eligibility.

4. EFC (Expected Family Contribution): a formula derived by Congress to determine the portion of students' families' financial resources that should be available to help pay educational costs. EFC includes all income, assets, and benefits, including unemployment or social security benefits.

5. FAFSA (The Free Application for Federal Student Aid): All Louisiana TOPS applicants must complete a FAFSA.

6. Financial Need: the difference between the expected family contribution and the cost of attendance.
7. Dependent student: a student less than 24 years of age who does not qualify as an independent student and whose parental income and asset information is used in calculating his or her expected family contribution.
8. Independent student: a student who is financially self-supporting.
9. Unmet need: the difference between the expected family contribution, plus scholarship, grant, and loan aid, minus the cost of attendance.
10. Community college: a postsecondary institution that offers academic and workforce programs of study leading to awards at the associate's degree or certificate level.
11. Full-time student: a student who enrolls in a minimum of twelve credit hours of course work per fall and spring semesters. TOPS requires students to earn a minimum 24 credit hours of course work each academic year to remain eligible for the following academic year.
12. Part-time student: a student who enrolls in less than twelve credit hours of course work per fall and spring semesters. Part-time students do not qualify for TOPS awards.
13. Pell Grant: The federal government's primary financial vehicle to assist needy student with postsecondary educational

expenses. To be eligible for a Pell Grant a student must enroll in an eligible postsecondary institution and must complete and meet all regulations outlined in the Federal Application for Free Student Aid.

14. LEAP (Leveraging Educational Assistance Partnership Program): a program that combines federal and state funds to postsecondary institutions to distribute to financially needy students based on criteria established by the Louisiana Office of Student Financial Aid to illuminate students with substantial financial need. Substantial financial need is the difference between a student's cost of attendance (COA) and the sum of his/her expected family contribution (EFC) and other student aid that the student will receive when he/she enrolls in a postsecondary institution; this sum must be equal to or greater than \$199.00.

16. TOPS (Louisiana Tuition Opportunity for Students Program): Louisiana's prime financial vehicle to reduce the cost of higher education for students who meet its merit-based qualifications.

17. Federal Supplemental Educational Opportunity Grant (FSEOG): a federally funded campus-based program that awards \$100 to \$4000 a year to undergraduate students who have exceptional financial need. FSEOGs provide funds to enhance financial benefits received by Pell Grant recipients.

18. Race/ethnicity: as defined by the TOPS 2003 database,

(African American/Black, American Indian/Alaskan Native, Caucasian American/White, Mexican American/Chicano, Asian American, Pacific Islander, Puerto Rican, Cuban, Other Hispanic, Other, Multiracial, Prefer Not To Respond).

19. Louisiana State University (LSU): Louisiana's largest public doctoral granting university. Also, Land Grant and Sea Grant University

20. University of Louisiana at Lafayette (ULL): Louisiana's second largest public doctoral granting university

21. Louisiana public two-year postsecondary institution (LPTPI): a postsecondary institution that award associate degrees and certificates. The schools included in this study are Louisiana State University @ Eunice, Delgado Community College, River Parishes Community College, Baton Rouge Community College, Southern University @ Shreveport, Elaine P. Nunez Community College, Bossier Parish Community College, and South Louisiana Community College.

22. Academic Year: for LSU, ULL, and LPTPIs the academic year includes the fall semester and the spring semester. The academic year does not include the summer session nor does it include intersession.

Significance of This Study

This study will examine quantitative data from the 2003 TOPS cohort of high school graduates data set (LBOR, 2005) to

illuminate areas where federal and state financial aid failed to meet the needs of qualified low-income students who planned to attend LSU, ULL, or a Louisiana public two-year postsecondary institution in academic year 2003-04. Such knowledge would assist Louisiana policymakers to gain an understanding as to the effect of the distribution of TOPS on student postsecondary participation; thus, this knowledge could help policymakers design future policy so that the distribution of state postsecondary student financial aid funds could maximize benefits to Louisiana's citizens, by structuring Louisiana's postsecondary financial aid system to provide more funding to students who have financial need, as opposed to providing funds to students who have no financial need.

Educational researchers argue that merit based financial aid programs satisfy the demands of middle and upper socioeconomic stratum families to reduce the cost of higher education, at the expense of lower socioeconomic stratum families because the distribution of merit based funds are disproportionately distributed to students from middle and upper income families, instead of students from lower income families (Heller and Marin, 2002; Inoue and Geske, 2006, Rubenstein and Scafidi, 2002; Dynarski 2000;, and Cornwell and Mustard, 2002). In support of this argument, Mortenson (1999) found that high school graduates from the highest income quartile are

approximately 66 percent more likely than high school graduates in the lowest income quartile to gain access to a postsecondary institution. One reason for this phenomenon, according to Orfield (1992), is that college affordability has decreased during the past two decades. According to Heller (2002), college affordability continues to decrease. Since the 1970s, regardless of the level of state government appropriations to postsecondary institutions, postsecondary institutions have consistently raised tuition in order to maintain current services and to add new services in order to compete with other institutions for the most academically prepared students (McPherson and Schapiro, 1998).

By analyzing the distribution of financial aid to students who attended LSU, ULL, and Louisiana public two-year postsecondary institutions in fall semester 2003, this study will illuminate groups, based on socioeconomic strata and race, who might not have funds equal to or greater than the cost of attendance.

Summary

Chapter One examined financial aid programs that are available to U.S. postsecondary students, their metamorphosis, through the past three decades, from primarily need based financial aid programs to a combination of need based, and merit based financial aid programs, and the problems associated with

the implementation of Louisiana's TOPS program. Chapter One lists the research questions, the theoretical perspective and the research significance that guides this study in order to illuminate the financial aid that is available to Louisiana students and to illuminate the characteristics of student who receive Louisiana postsecondary financial aid.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

Literature Review Introduction

Chapter Two will examine standardized test requirements and ethnicity; Louisiana's Tuition Opportunity Program (TOPS); financial aid, in addition to TOPS, that is available to Louisiana postsecondary students; the Federal Pell Grant Program, the Federal Supplemental Educational Opportunity Grant Program (FSEOG), and the Leveraging Educational Assistance Partnership Program (LEAP).

Standardized Test Requirements and Ethnicity

Many states, including Louisiana, use set minimum SAT or ACT standardized tests score requirements to determine who will receive state sponsored merit based scholarship funds. Nevertheless, standardized test have limitations: 1) educators must be aware that once a student reaches a certain level, for example an 1100 on the SAT, admissions officers are no longer able to benefit from further evaluation of his or her SAT scores to determine if he or she will be successful in college because the test is not a precise quantitative instrument; 2) standardized test do not measure applicants' personal qualities that might contribute greatly to their academic success in a postsecondary environment (Bowen & Bok, (1998). Psychologist Claude Steele, who studied the SAT, concluded that the SAT only measures approximately 18 percent of what it takes to do well in

school. Based on his work, Steele believes that the SAT is a rather poor predictor of the success of students attending postsecondary institutions (Steele, 1999).

Minorities, in particular African Americans, have expressed concerns regarding the fairness of standardized tests. African Americans have traditionally scored lower on standardized tests than whites. Nevertheless, the gap is closing. During the 1980s, the black/white standardized tests scoring gap closed quite substantially. Unfortunately, a significant gap remains and standardized tests, such as the SAT and ACT, may be one of the biggest single factors resulting in economic disparity between African Americans and whites. The biggest problem that African Americans face is the discrimination by postsecondary systems, which prevent some African Americans from gaining access to many higher educational institutions because of low standardized tests scores (Jencks & Phillips, 1998).

In the past, policy makers believed that desegregation of the public school was a remedy to close the educational gap between African American and white students. Reviewing the results of the last 30 years, we realize that desegregation may have helped close this gap; however, desegregation alone was not the remedy to the standardized testing gap (Jencks & Phillips, 1998).

Some people have a flawed misconception that the standardized

tests gap between African Americans and whites is genetics (Anderson, 1988; Watkins, 2001) For years, many people have used this justification to discriminate against African Americans by not urging their political leaders to legislate equal funding for African-American public education (Thernstrom & Thernstrom, 1997). As such, African American secondary schools often had teachers with less preparation than their white counterparts. Darling-Hammond reports that socially disadvantaged students are less likely to have teachers who hold full certification and a degree in their field (2000). Teachers without the proper preparation are more likely to fail when attempting to overcome teaching obstacles and tend to have low expectations for low-income students (Fetler, 1999).

To put the myth to rest that the standardized tests score gap between African Americans and whites is genetic, research indicates that most of the variance between African American and white standardized test scores is environmental in origin, as a result of unequal financial support systems for black communities, as compared to the financial support systems for white communities. These unequal financial support systems between African Americans and whites created a barrier to education and to social mobility, which remains formidable for members of the African American community today. The problem African Americans face is not one of improving the educational

system alone, nor is it one of improving the home environment alone. Too often African American children come to school less prepared than do white children. The home environment must be improved, so that African American children begin formal education on a level playing field with white children. This is not an easy task. Many of the problems are socioeconomic and cultural. These enormous problems require multiple solutions; thus, is beyond the scope of this paper (Jencks & Phillips, 1998).

Standardized tests; such as the SAT and the ACT, are tool used by postsecondary systems to admit students to an institution and to award financial aid. Unfortunately for some, the SAT and the ACT are problematic, as these tests do not accurately measure the academic aptitude of all students, especially of African-American students (Bowen & Bok 1998; Bronner 1997; Healy 1998; Malveauz, 1999; St. John & Hu, 2001).

Test designers did not intentionally design these tests to be harmful to African Americans. Nonetheless, the type of standardized tests used today, the SAT and the ACT, remains a centric method for evaluating applicants for college. The reason the SAT and the ACT tests remain a determining variable for educational administrators to determine whom to admit to the academy or whom to awarded a scholarship is simple: because the current standardized tests dominate their markets, newer tests

encounter powerful barriers to entry. (Thernstrom & Thernstrom, 1997).

The most popular college standardized test, the SAT, had racial overtones from its conception. Between 1923 and 1926, Carl C. Brigham published a book, *A Study of American Intelligence*, from data he collected while working with Professor Robert Yerkes, conducting analysis on Army IQ test data. Brigham's analysis concluded that American education was declining and would continue to decline because of the accelerating rate of racial mixing. During this time, Brigham also administered his own objective version of the Army IQ test to Cooper Union applicants, an all-scholarship technical college in New York City, and to freshmen attending Princeton University. The College Board, recognizing his work, and ask Brigham to develop a standardized test suitable for college applicants from a broad range of schools. Thus, the SAT was born and administered to high school students in 1926 (Sternberg, 1997).

In 1933, Harvard University appointed James Conant president. Conant appointed Henry Chauncey and Wilbur Bender the task to develop a method of selecting public school students to participate in a Harvard scholarship program. Searching for a suitable method, Chauncey and Bender traveled to Princeton where they met Carl Brigham. Early, the following year, Harvard began

using the SAT to select scholarship applicants; later that year, Harvard began requiring all applicants to take the SAT. Because of improvements in technology, allowing IBM machines to grade SAT tests, by the end of the 1930s, all Ivy League schools were using the SAT to help admissions officers select applicants (Sternberg, 1997).

In 1943, after the death of Carl Brigham, the Army-Navy College administered their version of a standardized test to over 316,000 high school seniors from various states. Thus, the Army-Navy College proved that it was feasible to administer standardized multiple-choice tests to mass groups (Sternberg, 1997).

In 1948, the Educational Testing Services (ETS) began operations in Princeton, NJ. James Conant assumed the responsibilities of chairman of the board, and Henry Chauncey became its president. Later that year, ETS established a branch office in Berkeley, California in an attempt to establish a relationship with the University of California. The branch was responsible for promoting the SAT as a requirement for college applicants (Sternberg, 1997).

By 1957, the number of students taking the SAT surpassed half a million, although California students were not required to take the test. The SAT had become big business. Soon, the SAT had competition. In 1959, the ACT became ETS's leading

competitor. Nevertheless, in 1960 the University of California system began using the SAT for all college applicants (Sternberg, 1997).

Many educational researchers realize that African-Americans face a unique problem. "The unfortunate circumstance is that the large disparity in black-white population percentages combined with the huge standardized tests racial scoring gap conspires against and excludes the African American applicant seeking higher education" (Cross & Slater, 1997).

The consequences of states setting minimum standardized test score student requirements that students must meet in order to receive merit based scholarship funding is detrimental to African Americans (Geske, 2006). Nationally a much lower percentage of African Americans, as compared to the percentage of whites, score high on the SAT, and a greater percentage of African Americans, as compared to whites, score low on the SAT (Bowen & Bok, 1998).

Bowen & Bok (1998) argue that admission to college is not a matter of rewarding students for work they have done through primary and secondary school. Admission to college should be based on a total student evaluation by admissions officers, filtering in their analysis of subjective data, to select students who they believe will contribute to the institution and to society upon graduation. To limit state merit based

scholarship awards based on students' performance on the SAT or ACT might have negative consequences for students from low-income families and minority families. Nevertheless, Louisiana's Tuition Opportunity Program limits awards to students based on a minimum ACT or SAT test score requirement.

Louisiana's Tuition Opportunity Program

The late Patrick F. Taylor, a New Orleans independent petroleum entrepreneur, was the catalyst for the establishment, in 1992, of the Louisiana Tuition Assistance Plan (TAP), which provided merit based funds to needy Louisiana Students. TAP worked in conjunction with Louisiana's Honors Scholarship Program, designed by ex-LSU Chancellor William Davis, which provided a full tuition waiver to all high school graduates who ranked in the top five percent of their graduating class at either a public and private Louisiana high school.

In the fall of 1998, Louisiana implemented its TOPS merit based student financial aid program, as a replacement for the TAP program and the Honors program, for incoming freshmen attending Louisiana's postsecondary institutions. Unlike the TAP program, TOPS has no income cap; thus, all Louisiana high school graduates who meet the TOPS merit requirements can qualify for TOPS; not just those with financial need. Policymakers intended TOPS to motivate students to perform academically by providing financial incentives for high school students to complete a

required high school core curriculum with a minimum grade point average of 2.5 on a 4.0 scale. In addition, policymakers believed that Louisiana's TOPS would encourage the most academically capable students to remain in Louisiana for their postsecondary education and that the financial incentives would promote greater postsecondary access for Louisiana high school graduates (LBOR, 2004).

Students who plan to attend a four-year public or private university in Louisiana may be eligible based upon their academic qualifications to receive a TOPS award from one of three levels: the Honors Award, Performance Award, or Opportunity Award. Each TOPS award requires that recipients complete 16.5 units of a designated college preparation core curriculum in high school with a minimum GPA, and score a set requirement on the American College Testing (ACT). Table 3 describes minimum qualifications that TOPS recipients must meet to qualify for an award.

TOPS awards tuition for the Opportunity award, tuition plus a \$400 stipend for the Performance award, or tuition plus an \$800 stipend for the Honors award. The TOPS award does not include additional mandatory fees that Louisiana postsecondary institutions assess students. These fees for each public four-year Louisiana postsecondary institution ranged from a high amount of \$964 per academic year at Louisiana State University

Table 3 TOPS Awards and Eligibility Requirements

Award	Curriculum	Core GPA	ACT
Honors	College Prep Core 16.5 units	3.00	27
Performance	College Prep Core 16.5 units	3.00	23
Opportunity	College Prep Core 16.5 units	2.50	20

Source: LBOR, 2004, p. 4.

at Baton Rouge to a low amount of \$186 per academic year at River Parishes Community College. In addition, the TOPS awards do not provide funding for other fees such as books and room and board (LBOR, 2004).

According to the Louisiana Board of Regents (2004), in 2003, Louisiana graduated from secondary school 45,226 students, of which less than 33% qualified for TOPS aid. Approximately 67% of Louisiana high school graduates did not qualify for TOPS because they failed to meet the minimum ACT/SAT test requirements and/or they failed to complete the 16.5 units of the required core curriculum. Of the 14,797 students who qualified for TOPS aid, approximately 10% did not use the TOPS award to enroll in a Louisiana postsecondary institution (LBOR, 2004).

Table 4 displays the number of students, by parental income and race, who qualified for a TOPS award in 2003.

Other factors, such as academic ability and college preparation also affect the actual benefit to recipients of the aggregate TOPS. Once a student enrolls in a Louisiana

Table 4 TOPS Recipients by Parental Income and by Race, 2003 Cohort

Income	Total Recipients	Whites	African American	Other
< \$20K number percent	1,784 (14.62%)	1,048 (8.59%)	493 (4.04%)	243 (1.99%)
\$20-\$50K number percent	2350 (19.26%)	1689 (13.84%)	419 (3.43%)	323 (2.65%)
\$50K-100K number percent	4979 (40.80%)	4118 (33.75%)	369 (3.20%)	492 (4.03%)
> \$100K number percent	3090 (25.32%)	2723 (22.31%)	129 (1.10%)	238 (1.95%)

Note: students whose parental income was not listed in the 2003 database were not included

Source: Inoue and Geske, 2006

postsecondary institution, students must meet TOPS designated requirements in order to maintain TOPS eligibility.

The Opportunity, Performance, and Honors awards all require students to complete a minimum of 24 credit hours each academic year. In addition to the requirement that students earn 24 credit hours per academic year, in order to keep an Opportunity award students must also earn a 2.3 GPA their first academic year and a 2.5 GPA on all other academic years; for the Honors Award or the Performance Award, students must earn a 3.0 GPA each academic year (LBOR, 2004).

According to the Louisiana Board of Regents (2004), TOPS has been successful by encouraging secondary students to complete core requirements in high school and maintain the required grade point average in order to meet the TOPS requirements. TOPS administrators state that Louisiana students are entering the academy academically better prepared than their cohorts who entered the academy before the implementation of TOPS. In 1998, for example, 42% of Louisiana high school graduates, who entered a Louisiana public postsecondary institution, entered on TOPS. The percentage of Louisiana high school graduates, who entered a Louisiana postsecondary institution on TOPS increased only slightly each year between 1998 and 2003, when 46% of Louisiana's high school graduates, who entered a Louisiana public postsecondary institution, entered on TOPS.

TOPS has also achieved limited success encouraging Louisiana high school graduates to enroll in Louisiana postsecondary institutions, as opposed to enrolling in out-of-state postsecondary institutions (LBOR, 2004). In 1996, for example, 87% of full-time freshmen (FTF) from Louisiana entered Louisiana public postsecondary institutions. In 2002, the percentage of FTF from Louisiana who entered Louisiana public postsecondary institutions increased to 91%.

Other Available Financial Aid for Louisiana Postsecondary Students

In addition to TOPS, Louisiana students who seek access to a Louisiana postsecondary institution may qualify for other forms of federal and state aid such as the Federal Pell Grant program, the Federal Supplemental Educational Opportunity Grant program (FSEOG), and Louisiana's Leveraging Educational Assistance Partnership Program (LEAP).

Pell Grants

The Federal Pell Grant Program, which was derived from the Higher Education Act of 1965, continues since its inception in 1973 to be the federal government's primary financial vehicle to assist needy students with postsecondary educational expenses. The Office of Financial Aid, within the U.S. Department of Education, manages Pell Grant dispersion. To be eligible for a Pell Grant, a student must 1) be enrolled in an eligible postsecondary institution to seek a degree or certificate; 2) must meet residential requirements and other regulations outlined in the Federal Application for Student Aid (FAFSA), and based on analysis of the FAFSA, demonstrate financial need (FPGPEY, 2006). In 2004-05 academic year, the Office of Financial Aid distributed 13.1 billion dollars in financial assistance to 5.3 million students. As such, one quarter of all undergraduate U.S. students received Pell Grant assistance (FPGPEY, 2006).

Pell Grant Program administrators determine the financial need of undergraduate students based on undergraduate students' total educational cost, students' expected family contribution (EFC), and attendance status (full or part-time). Total educational cost consists of yearly tuition, fees, books and supplies, on-campus room and board, or off-campus rent, utilities, and food, plus transportation and miscellaneous living expenses. Therefore, undergraduate student Pell Grant awards vary in the amount of the award based upon students' total educational cost, expected family contribution, and whether a student attends school full-time or part-time (FPGPEY, 2006).

Pell Grant awards for 2004-05 ranged from \$400 per academic year to \$4050 per academic year (FPGPEY, 2006). From the 2003-04 academic year through the 2006-07 academic year, the maximum Pell Grant award of \$4050 per academic year was the highest value for the award since the inception of Pell Grant awards; however, in inflation-adjusted dollars Pell Grant awards have remained comparatively constant. In inflation-adjusted dollars, the maximum Pell Grant award value reached a high value of \$4541 per academic year in 1975-76 and the maximum Pell Grant award value reached a low value of \$2724 per academic year in the mid-1990 (FPGPEY, 2006).

In 2004-05, the median income of dependent and independent Pell Grant recipients was \$19,299 per year. In 2004-05, the median income of dependent Pell Grant recipients was \$24,893; for independent Pell Grant recipients the median income was \$15,299. The maximum Pell Grant covers approximately 41 percent of the average price of tuition, fees, and on campus room and board at U.S. four-year public postsecondary institutions (FPGPEY, 2006). According to data from the Louisiana Board of Regents (2003), at LSU, the maximum Pell Grant covers only approximately 33 percent of the average price of tuition, fees, and on campus room and board; at ULL the maximum Pell Grant covers 44 percent of the average price of tuition, fees, and on campus room and board. The percentage of educational cost covered by the maximum Pell Grant varied widely for students who attend Louisiana public two-year postsecondary institutions.

In the 2004-05 academic year, 105,500 Louisiana students received Pell Grants totaling 269.6 million dollars. Of the 2004-05 Louisiana recipients, 79,000 students received 211 million dollars to attend public postsecondary institutions, 6.8 thousand students received 18.2 million dollars to attend private postsecondary institutions, and 16.7million students received 40.4 million dollars to attend proprietary institutions (FPGPEY, 2006).

In the 2003-04 academic year, of the 4323 students who elected to attend LSU on a TOPS scholarships, approximately 20 percent qualified for 2.4 million dollars worth of Pell Grants. The LSU 2003-04 Cost of Attendance (COA) was \$9727 per academic year; as such, for an LSU student in academic year 2003-04 to qualify for a Pell Grant he or she had to demonstrate financial need, after subtracting his or her expected family contribution (EFC) from the COA.

In the 2003-04 academic year, of the 1410 students who elected to attend ULL on a TOPS Scholarship, approximately 26 percent qualified for 1.1 million dollars worth of Pell Grants. The ULL 2003-04 Cost of Attendance (COA) was \$9409 per academic year; as such, for an ULL student in academic year 2003-04 to qualify for a Pell Grant he or she had to demonstrate financial need, after subtracting his or her expected family contribution (EFC) from the COA.

In the 2003-04 academic year, of the 546 students who elected to attend a Louisiana public two-year postsecondary institution (LPTPI) on a TOPS Scholarship, approximately 31.5 percent qualified for \$493.6 thousand dollars worth of Pell Grants. The LPTPI 2003-04 Cost of Attendance (COA) ranged from a high of \$7981 at Louisiana State University at Eunice to a low of \$7705 at Baton Rouge Community College; as such, for a LPTPI student in academic year 2003-04 to qualify for a Pell Grant he or she

had to demonstrate financial need, after subtracting his or her expected family contribution (EFC) from the COA. Table 5 displays the percentage of TOPS recipients who enrolled at LSU, ULL, or a Louisiana public two-year postsecondary institution with and without Pell Grants.

Table 5 LSU, ULL, and Louisiana Two-year Postsecondary Institution Pell Grant Distribution among TOPS Recipients

	Total	White	African American	Other
LSU TOPS Recipients w/Pell Grants	4323 20.06%	85.03% 13.35%	7.19% 3.96%	7.78% 2.75%
ULL TOPS Recipients w/Pell Grants	1410 26.24%	89.43% 20.14%	7.30% 4.54%	3.25% 1.56%
LA 2-yr IHE TOPS Recipients w/Pell Grants	546 31.50%	85.90% 25.27%	4.95% 3.48%	9.15% 3.66%

Source: authors' calculations from TOPS 2003 recipient database.

Federal Supplemental Educational Opportunity Grants

The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federally funded campus-based program that awards \$100 to \$4000 a year to undergraduate students who have exceptional financial need. FSEOGs provide funds to enhance financial benefits received by Pell Grant recipients. Unlike Pell Grants, which rely on total educational cost, expected family contribution, and attendance status (fulltime or part-time) in order to determine the value of an award, FSEOG distribution is based on a measure of net price of attendance,

which is the price that students and their families pay to attend a postsecondary institution, after taking financial aid into account. For students who are identified as having exceptional financial need, participating institutions of higher education (IHEs) award FSEOGs based on each institution's individual policies and practices. Unlike Pell Grants, FSEOG funds are finite; as such, participating IHEs receive limited FSEOG funds to distribute to the neediest students. Because of the limited funding of the FSEOG program, students may not receive the maximum award for which they qualify and if an IHE has awarded all of their allotted FSEOG funds, future applicants will not receive awards, regardless of the magnitude of their financial need (NASFAA, 2006).

In the 2002-03 academic year, Louisiana distributed \$9.9 million in FSEOGs to approximately 12.8 thousand students; the average award was \$773 (NASFAA, 2003). At LSU, ULL, and Louisiana public two-year postsecondary institutions, students who received a Pell Grant and had a \$0 EFC qualified to receive a FSEOG. As such, at LSU 5.2% of students listed as 2003 TOPS recipients qualified to receive a FSEOG; at ULL 10.4% of students listed as 2003 TOPS recipients qualified to receive a FSEOG; and, at Louisiana public two-year postsecondary institutions 12.1% of students listed as 2003 TOPS recipients qualified to receive a FSEOG.

Leveraging Educational Assistance Partnership Program

The Leveraging Educational Assistance Partnership Program (LEAP), which was formerly the Louisiana State Student Incentive Grant program (SSIG), provides funds to Louisiana postsecondary institutions to distribute to financially needy students based on criteria established by the Louisiana Office of Student Financial Aid (LOSFA) and the postsecondary institution distributing the funds. The amount of aid awarded to a student depends on his or her financial need and the amount of funds available for distribution from the student's postsecondary institution. In 2004, LEAP distributed approximately \$1.5 million to nearly 4,000 students. Awards ranged from \$200 to \$2,000; the average award was \$369 (LOSFA).

To receive a LEAP award from LSU or ULL, students must earn a 3.0 grade point average, on a four point scale, in high school, be registered as a full time student, and have a financial need greater than \$350 after all other financial aid has been taken into account. At LSU and ULL, the LEAP award is \$1000 per academic year. The values of LEAP financial aid at Louisiana public two-year postsecondary institutions vary from one institution to another.

Summary

Chapter Two examined financial aid programs that are available to Louisiana postsecondary students. State programs examined in

Chapter II included the TOPS program and the much smaller LEAP Program. Federally administrated financial aid programs examined in Chapter II included the Pell Grant Program and the Federal Supplemental Educational Opportunity Grant Program.

CHATER THREE: METHODOLOGY

The primary research questions guiding this study are: 1) What are the basic characteristics of TOPS recipients? How do race/ethnicity, parental income, ACT scores, and high school grade point average affect TOPS scholarship distribution? 2) How do TOPS scholarship recipients at LSU and ULL compare to TOPS scholarship recipients at Louisiana public two-year postsecondary institutions? 3) For which students do TOPS scholarships fill the void of unmet financial need to attend LSU, ULL, or a Louisiana public two year postsecondary institution? For which students do TOPS scholarships fail to fill the void of unmet financial need for students attending LSU, ULL, or a Louisiana public two-year postsecondary institution? 4) How has the cost of attendance, expected family contribution, and financial aid changed since the inception of TOPS for students who attend LSU, ULL, or a Louisiana public two-year postsecondary institution?

Methods

The data set analyzed in this study came from the Louisiana State Tuition Opportunity Program database of 2003 TOPS recipients (public, private, home school, or out-of-state) entering postsecondary education (public or private) in fall 2003, with a TOPS Opportunity, Performance, or Honors award. These data are part of an accountability program to ensure that

educational practitioners, legislators, and the public have access to TOPS data, so that they may understand the strengths and weaknesses of TOPS.

Samples

To be consistent with the research objectives of this study, the focus group consisted of students who were TOPS recipients for the fall semester 2003 in baccalaureate degree programs at Louisiana's two largest public postsecondary institutions, Louisiana State University at Baton Rouge (LSU) and the University of Louisiana at Lafayette (ULL). Students attending the two largest public four-year baccalaureate institutions are more likely to have similar goals and aspirations than would a sample of students from all postsecondary institutions in Louisiana. Nevertheless, in order to measure contrast among fall semester 2003 TOPS recipients who attend Louisiana public postsecondary institutions, this study also included students who attended Louisiana public two-year postsecondary institutions. Because the number of TOPS recipients at any one of Louisiana public two-year postsecondary institutions is statically small, in order to maintain sample integrity, this study grouped together all TOPS 2003 cohorts of Louisiana high school graduates who attended Louisiana public two-year postsecondary institutions during the fall semester 2003.

This study used sociological, financial, and economic information to compare and analyze data from the 2003 TOPS cohort of high school graduates who enrolled at LSU, ULL, or a Louisiana public two-year postsecondary institution. From the 2003 TOPS cohort of high school graduate database, this paper will include an additional column (Pell Grant), which is derived from the Federal Pell Grant Payment Schedule for Full-time Students who entered a postsecondary educational institution in 2003 (FPGPEY, 2006). A second additional column will equal the value of a FSEOG. At LSU and ULL, students who qualify for a full value Pell Grant (\$4050) and whose expected family contribution (EFC) is equal to 0 will automatically qualify for a FSEOG. The value of these grants is \$1000 each per academic year for each recipient at LSU and ULL. The values of a FSEOG at Louisiana public two-year postsecondary institutions vary from one institution to another. A third additional column will equal the value of a LEAP financial aid award. At LSU, ULL, and Louisiana public two-year postsecondary institutions LEAP financial aid is awarded to students who still have an unmet financial need greater than \$350 after the subtraction of EFC, TOPS awards, Pell Grants, and FSEOGs and who earned a 3.0, on a 4.0 scale, grade point average in high school. The value of LEAP financial aid awards at LSU and ULL is \$1000 for each recipient per academic year. The values of LEAP financial aid at Louisiana

public two-year postsecondary institutions vary from one institution to another.

The conceptual model for this study is based upon economic/financial models, sociological models, and the availability of data from the 2003 TOPS cohort of high school graduates information database. Variables used for this study were selected because of their past use in economic/financial models and sociological models to examine access to higher education. Therefore, this study will include the following variables:

- Race/Ethnicity
- High School Core GPA
- ACT Composite Scores
- Type of TOPS Award (Opportunity, Performance, Honors)
- Parental Income
- Expected Family Contribution
- Cost of Attendance (COA) for LSU, ULL, and Louisiana public two-year postsecondary institutions
- Amount of aid from Pell Grant
- Amount of aid from Federal Student Educational Opportunity Grants (FSEOG)

- Amount of aid from Leveraging Educational Assistance Partnership Program (LEAP)
- Amount of aid from TOPS award

Measurement and Coding of Variables

The outcome variable for this study is dichotomous: students either have funds equal to or greater than the cost of attendance at LSU, ULL, or a Louisiana public two-year postsecondary institution or students do not have funds equal to the cost of attendance at LSU, ULL, or a Louisiana public two-year postsecondary institution. Since the cost of attendance is not the same for LSU, ULL, or a Louisiana public two-year postsecondary institution and because students will receive individualized financial aid packages that are based on need and merit, each student's outcome variable will be a measure of net price (cost of attendance - EFC+Pell Grants+FSEOGS+LEAP grants+TOPS awards) for the institutions attended. The outcome variable for students who have funds equal to or greater than the cost of attendance at LSU, ULL, or a Louisiana postsecondary institution is coded as 1; the outcome variable for students who do not have funds equal to the cost of attendance at LSU, ULL, or a Louisiana public two-year postsecondary institution is coded as 0.

The independent variables examined in this study using logistic models are:

- Race/ethnicity (African American/Black, American Indian/Alaskan Native, Caucasian American/White, Mexican American/Chicano, Asian American, Pacific Islander, Puerto Rican, Cuban, Other Hispanic, Other, Multiracial, Prefer Not To Respond).
- Parental income will be categorized as low-income (parental income less than \$30,000 a year), low middle income (parental income between \$30,000 and \$44,999 a year), middle income (parental income between \$45,000 and \$74,999 a year), upper middle income (parental income between \$75,000 and \$99,998 a year), and upper income (parental income equal to or greater than \$99,999 a year).
- High School grades will be coded into a set of design variables as below C grades (less than 2.0), C grades (2.0 to 2.999), B grades (3.0 to 3.499), and A grades (3.5 to 4.0).
- ACT Score

Statistical Model

This study will use logistic regression because the dependent variable is binary. Louisiana students attending LSU, ULL, or a Louisiana public two-year postsecondary institution in academic year 2003-04 either have funds equal to or greater than the cost of attendance or they do not have funds equal to or greater than the cost of attendance. According to Long (1997),

researchers could use linear probability models such as the probit model and the logit model; however, linear models have drawbacks. Using linear regression, the predicted values will become greater than one and less than zero as data moves along the x-axis. If the dependent variable is dichotomous, such values are theoretically inadmissible. In addition, linear regression assumes homoscedasticity, that the variances of Y are constant across the values of X. In logistic regression, this is impossible because variance is PQ , where P is the proportion of 1s and Q is equal to $1-P$. As such, when 50 percent of the sample is 1s, the variance is .25. For any values where P is greater than 50 percent or less than 50 percent, the variance decreases. Last, the tests of regression weights are suspect if the dependent variable is binary, because the significance testing of the b weights rest upon the assumption that errors of prediction ($Y-Y'$) are normally distributed.

The logistic regression model is specified as:

$$Y' = \ln \frac{P}{1-P} = a + BX + E$$

Where P is the probability that student (i) has adequate funds to gain access to LSU, ULL, or a Louisiana public two-year postsecondary institution; X is a vector of variables concerning socioeconomic status as defined by parental income level; students' race/ethnicity; and the level of college preparation as defined by students' postsecondary grade point average and

ACT standardized test scores; B is the vector of estimated coefficients, and E represents a random error term which is logistically distributed.

Data Analysis

Descriptive analysis of the 2003 TOPS cohort of high school graduate database will illustrate the dispersion of TOPS funds among students from different socioeconomic strata.

This study will include cross-tabulation analyses of the 2003 TOPS cohort of high school graduate data. The independent variables of socioeconomic status, race/ethnicity, and pre-college, preparation will be measured against the dependent variable; net price of attendance. Cross-tabulation may expose differences between students who might have the same net price of attendance for LSU, ULL, or a Louisiana public two-year postsecondary institution, but might have different values of academic preparation; however, cross-tabulation is a measure of the overall difference in outcome without controlling for other variables.

Multivariate analyses enable researchers to control the effects of independent variables on the dependent variable. Therefore, because the outcome variable is binary, multivariate logistic regressions will help to examine the effects of different variables that affect students' net price of attendance at LSU, ULL, or a Louisiana public two-year

postsecondary institution for academic year 2003-04, (Long, 1997). Logistic regressions help researchers quantify the effect of various factors related to the probability that a particular outcome will occur. The focus of this study is to estimate the impact of Louisiana's TOPS on the net price of attendance for the 2003 TOPS cohort of high school graduates attending LSU, ULL, or a Louisiana public two-year postsecondary institution and to quantify the relationship of socioeconomic background, academic preparation, and amount of financial aid received by students.

Interpretation of Results Logistic Regression

According to Long (1997), the interpretation of coefficient estimates from logistical regression is complex. This study will employ SPSS v. 10 to run a logistic regression analysis.

Odd Ratio

The odds ratio formula is $\text{odds} = \text{probability} / (1 - \text{probability})$, as such, $\text{probability} = \text{odds} / (1 + \text{odds})$. Nevertheless, SPSS presents all odds in $\log(\text{odds})$, to create linearity. $\log(\text{odds}) = \ln((P / (1 - P)))$. By employing the $\log(\text{odds})$ format, the probabilities remain above 0 and below 1. The S-shaped curve is neither additive nor multiplicative; thus, it conforms to the characteristics of logistic regression models. The slope term in logistic models, represent the log of the odds ratio.

Discrete Change of Probability

SPSS v. 10, will be used to first conduct a crude logistic regression model that examines how a single covariate influences the outcome variable. Second, an adjusted model will be employed that examines how the other covariates influence the outcome variable. Last, a thorough examination of predicted probabilities will be conducted to ensure that the predicted probabilities match the observed probabilities.

Limitations

Several limitations exist for this study. First, this study examines data from high school graduates who have qualified for TOPS funds and who have gained access to LSU, ULL, or a Louisiana public two-year postsecondary institution. Therefore, this study can only measure the adequate funding of students who qualified for TOPS funds for academic year 2003-04 to attend LSU, ULL, or a Louisiana public two-year postsecondary institution. This study does not take into account students who did not qualify for TOPS funding. In addition, this study attempts to quantify the effectiveness of TOPS to help low-income students finance an undergraduate education at LSU, ULL, or a Louisiana public two-year postsecondary institution. It may not be applicable to all private or public universities in Louisiana, or public or private universities in states that have similar financial aid programs. Last, there are variables that

influence college participation other than the variables examined in this research. Nevertheless, the absence of these variables most likely will not negate the viability of the estimated effects of TOPS on student postsecondary participation.

CHAPTER FOUR: ANALYSIS

The first step to analyze different student populations from this study is to describe student characteristics from Louisiana State University (LSU), the University of Louisiana at Lafayette (ULL), and Louisiana public two-year postsecondary institutions (LPTPI).

LSU, ULL, and LPTPI TOPS 2003 Distribution

In 2003, 4323 new TOPS recipients attended LSU. Of the 4323 new TOPS 2003 recipients who attend LSU, 2950 (68.24%) students received a TOPS Opportunity Award, 684 (15.82%) students received a TOPS Performance Award, and 689 (15.94%) students received a TOPS Honors Award. From the TOPS 2003 database, 4156 students reported a mean parental income of \$97,935, with a standard deviation of \$94,564.

In 2003, 1410 new TOPS recipients attended ULL. Of the 1410 new TOPS 2003 recipients who attend ULL, 1074 students (76.17%) received a TOPS Opportunity Award, 227 students (16.10%) received a TOPS Performance Award, and 109 students (7.73%) received a TOPS Honors Award. From the TOPS 2003 database, 1321 students reported a mean parental income of \$75,506, with a standard deviation of \$71,659.

In 2003, 546 new TOPS recipients attended a Louisiana public two-year postsecondary institution (LPTPI). Of the 546 new TOPS 2003 recipients who attend LPTPI, 485 students (88.83%)

received a TOPS Opportunity Award, 52 students (9.52%) received a TOPS Performance Award, and 9 students (1.65%) received a TOPS Honors Award. From the TOPS 2003 database, 431 students reported a mean parental income of \$70,110, with a standard deviation of \$69,147.

Table 6 TOPS Scholarship Awards Distribution

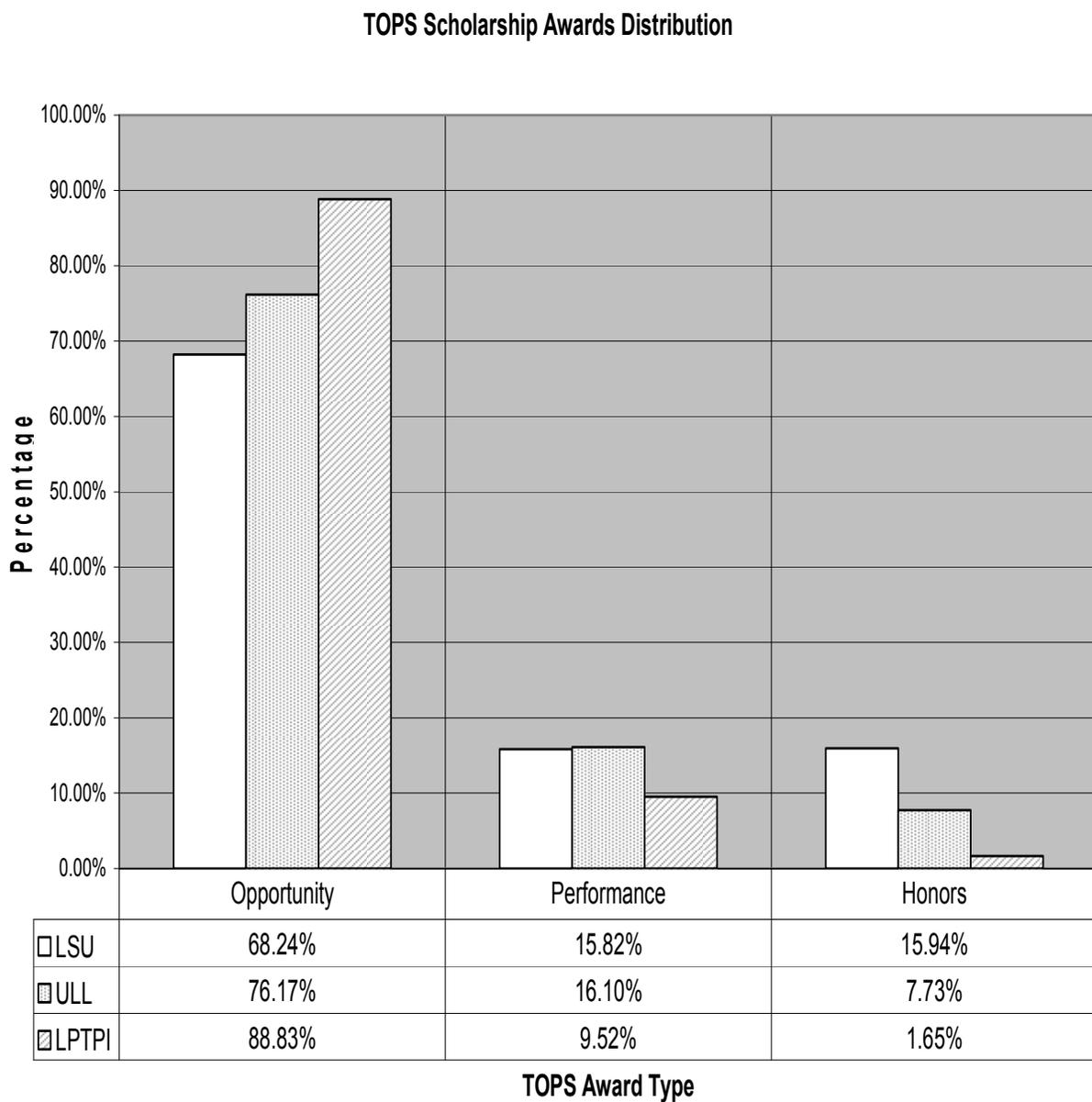
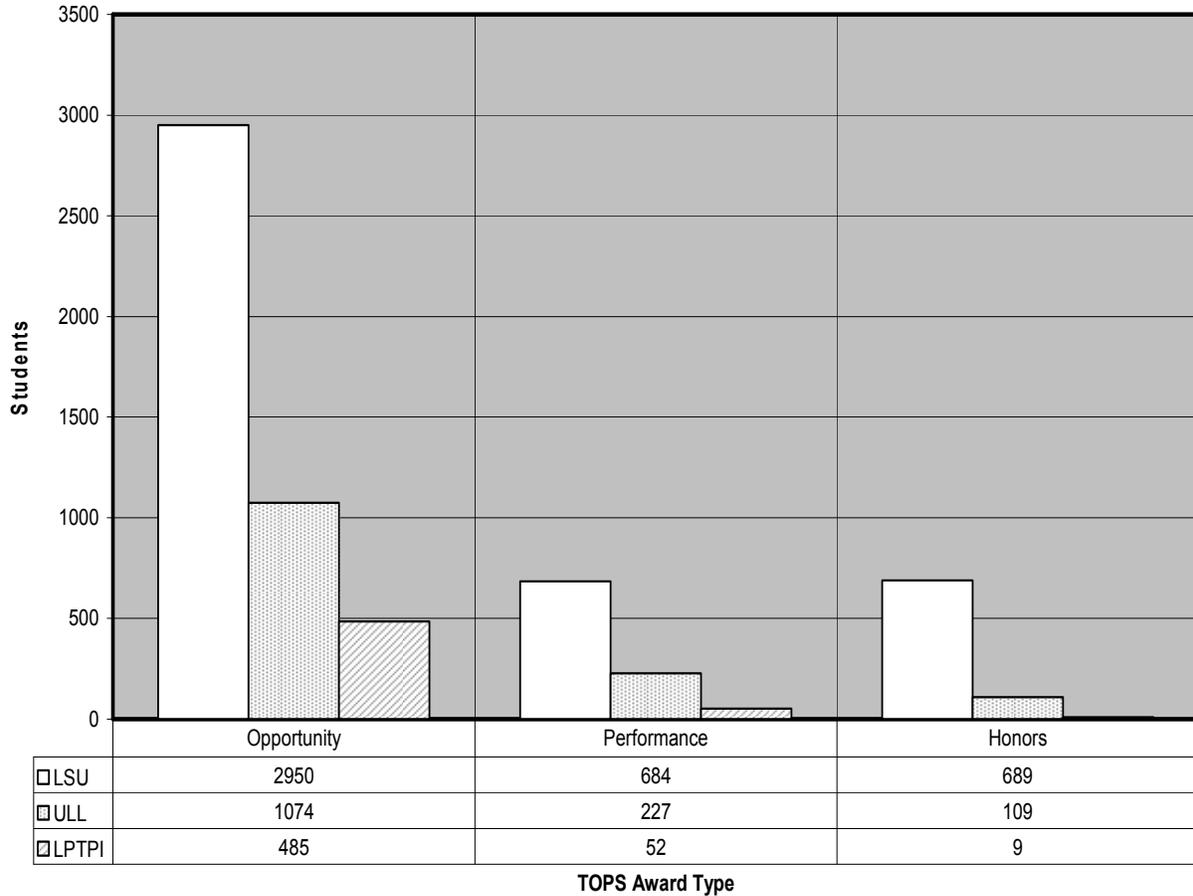


Table 7 Total TOPS 2003 Scholarship Award Distribution

Total TOPS 2003 Scholarship Award Distribution



LSU, ULL, and LPTPI 2003 TOPS Distribution to Pell Grant Recipients

In 2003, 867 (20.06%) new LSU TOPS recipients received a Federal Pell Grant. LSU Pell Grant recipients who received a first-time 2003 TOPS award accounted for 14.85% (642) of LSU TOPS 2003 Opportunity Award recipients, 2.94% (127) of LSU TOPS 2003 Performance Award recipients, and 2.27% (98) of LSU TOPS 2003 Honors Award recipients. Of the 20.06% (876) LSU TOPS 2003 recipients with Pell Grant Awards, 74.04% (642) received a TOPS

Opportunity Award, 14.65% (127) received a TOPS Performance Award, and 11.3% (98) received a TOPS Honors Award.

In 2003, 370 (26.24%) new ULL TOPS 2003 recipients received a Federal Pell Grant. ULL Pell Grant recipients who received a first-time 2003 TOPS award accounted for 20.78% (293) of ULL TOPS Opportunity Award recipients, 3.97% (56) of ULL TOPS 2003 Performance Award recipients, and 1.49% (21) of ULL TOPS Honors Award recipients. Of the 26.25% (370) TOPS 2003 recipients with Pell Grant awards, 79.19% (293) received a TOPS Opportunity Award, 15.14% (56) received a TOPS Performance Award, and 5.68% (21) received a TOPS Honors Award.

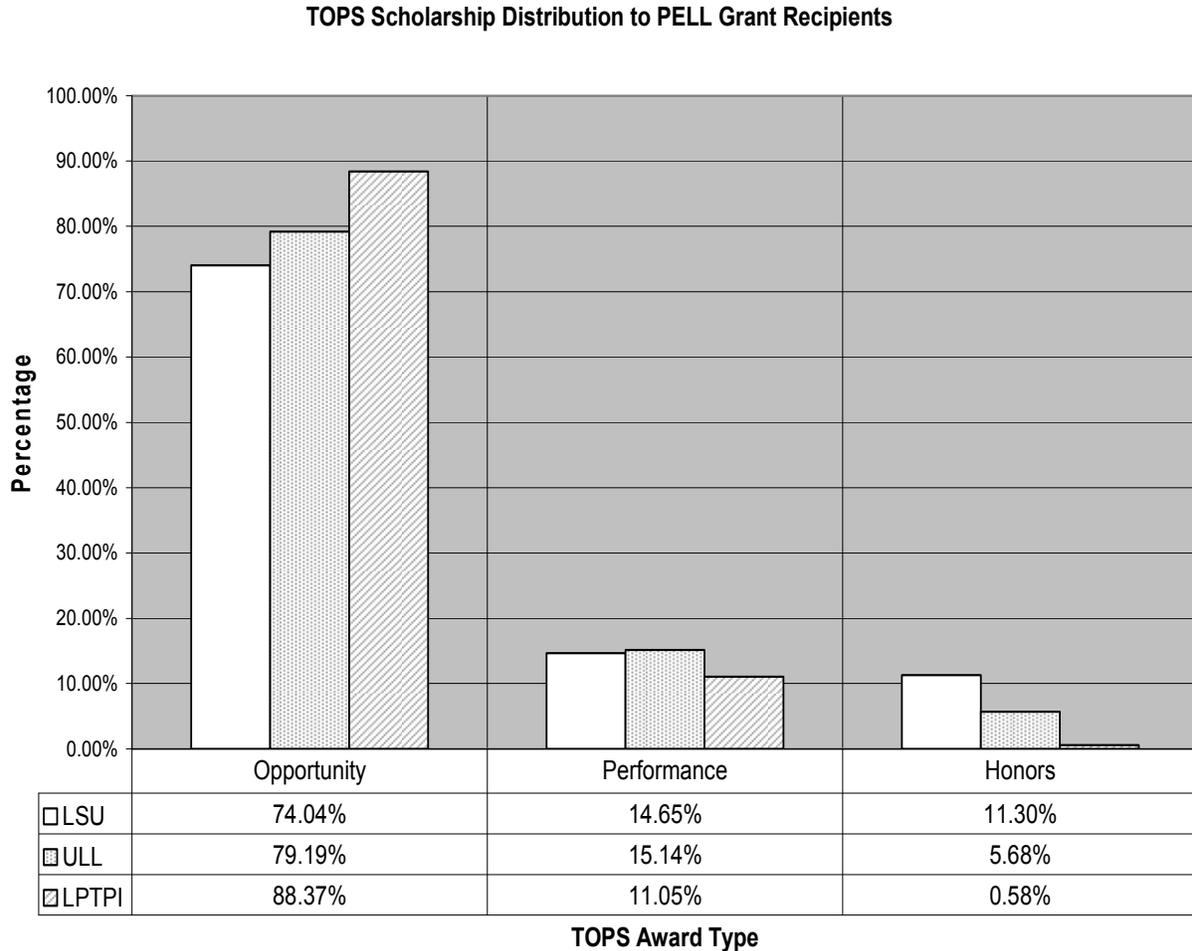
In 2003, 172 (31.5%) new LPTPI TOPS 2003 recipients received a Federal Pell Grant. LPTPI Pell Grant recipients who received a first-time 2003 TOPS award accounted for 27.84% (152) of LPTPI TOPS Opportunity Award recipients, 3.48% (19) of LPTPI TOPS 2003 Performance Award recipients, and 0.18% (1) of LPTPI TOPS Honors Award recipients. Of the 31.5% (172) TOPS 2003 recipients with Pell Grant awards, 88.37% (152) received a TOPS Opportunity Award, 11.05% (19) received a TOPS Performance Award, and 0.58% (1) received a TOPS Honors Award.

LSU, ULL, and LPTPI 2003 TOPS Distribution to Non-Pell Grant Recipients

In 2003, 3456 (79.94%) new LSU TOPS 2003 recipients did not receive a Federal Pell Grant. The 3456 new LSU TOPS 2003 recipients who did not receive a Pell Grant accounted for 53.39%

(2308) of LSU TOPS 2003 Opportunity Award recipients, 12.88% (557) of LSU TOPS 2003

Table 8 TOPS Scholarship Distribution of Pell Grant Recipients



Performance Award recipients, and 13.67% (591) of LSU TOPS 2003 Honors Award recipients. Of the 3456 LSU TOPS 2003 recipients without Pell Grant Awards, 66.78% (2308) received a TOPS Opportunity Award, 16.12% (557) received a TOPS Performance Award, and 17.1% (591) received a TOPS Honors Award.

In 2003, 1040 (73.76%) new ULL TOPS 2003 recipients did not receive a Federal Pell Grant. The 1040 new ULL TOPS 2003

recipients who did not receive a Pell Grant accounted for 55.39% (781) of ULL TOPS 2003 Opportunity Award recipients, 12.13% (171) of ULL TOPS 2003 Performance Award recipients, and 8.46% (88) of ULL TOPS 2003 Honors Award recipients. Of the 1040 ULL TOPS 2003 recipients without Pell Grant Awards, 75.1% (781) received a TOPS Opportunity Award, 16.44% (171) received a TOPS Performance Award, and 8.47% (88) received a TOPS Honors Award.

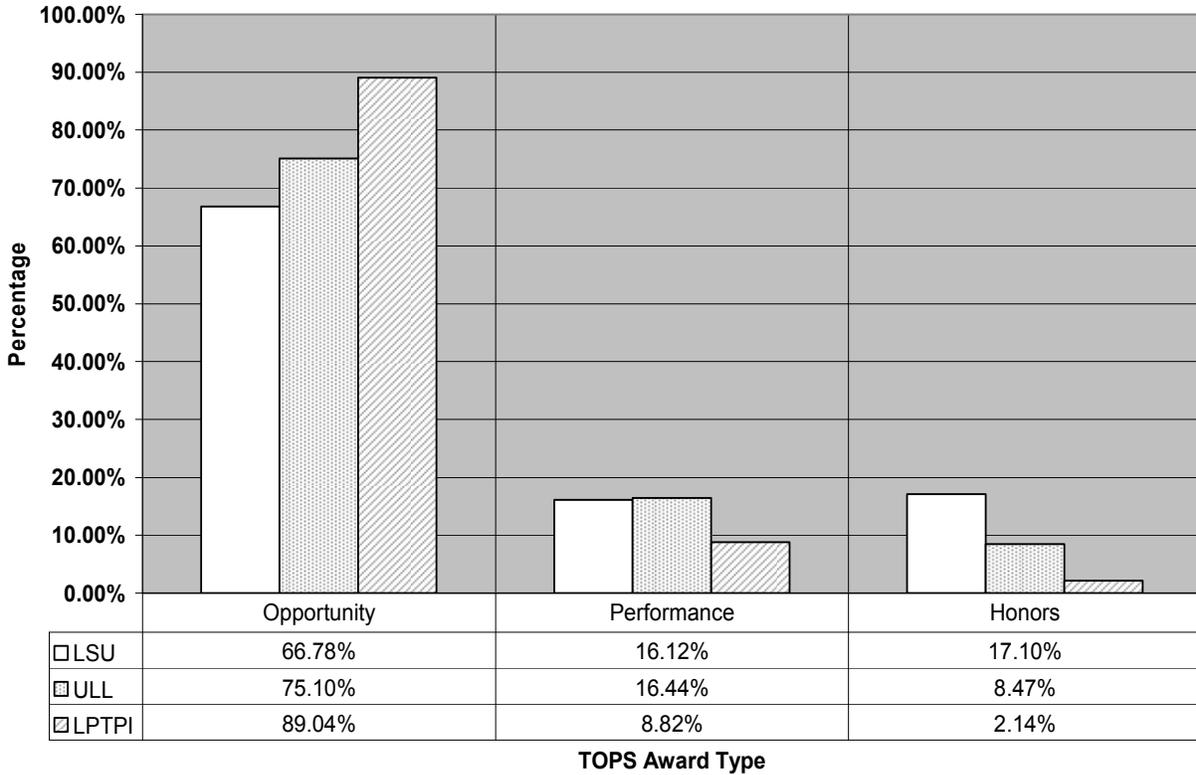
In 2003, 374 (68.5%) new LPTPI TOPS 2003 recipients did not receive a Federal Pell Grant. The 374 new LPTPI TOPS 2003 recipients who did not receive a Pell Grant accounted for 60.99% (333) of LPTPI TOPS 2003 Opportunity Award recipients, 6.04% (33) of LPTPI TOPS 2003 Performance Award recipients, and 1.47% (8) of LPTPI TOPS 2003 Honors Award recipients. Of the 374 LPTPI TOPS 2003 recipients without Pell Grant Awards, 89.04% (333) received a TOPS Opportunity Award, 8.82% (33) received a TOPS Performance Award, and 2.14% (8) received a TOPS Honors Award.

TOPS 2003 Scholarship Award Distribution (Black/White)

Of the 6279, new TOPS 2003 recipients, who attended Louisiana State University (LSU), the University of Louisiana at Lafayette (ULL), or a Louisiana public two-year postsecondary institution (LPTPI), 5406 (86.1%) were white and 441 (7.02%) were black. Of the 4323, TOPS 2003 recipients, who attended LSU, 3676 (85.03%) were white and 311 (7.19%) were black. Of the 1410, TOPS 2003 recipients, who attended ULL, 1261 (89.43%) were

Table 9 TOPS 2003 Scholarship Distribution (Non-Pell Grant Recipients)

TOPS 2003 Scholarship Award Distribution (Non-PELL Grant Recipients)

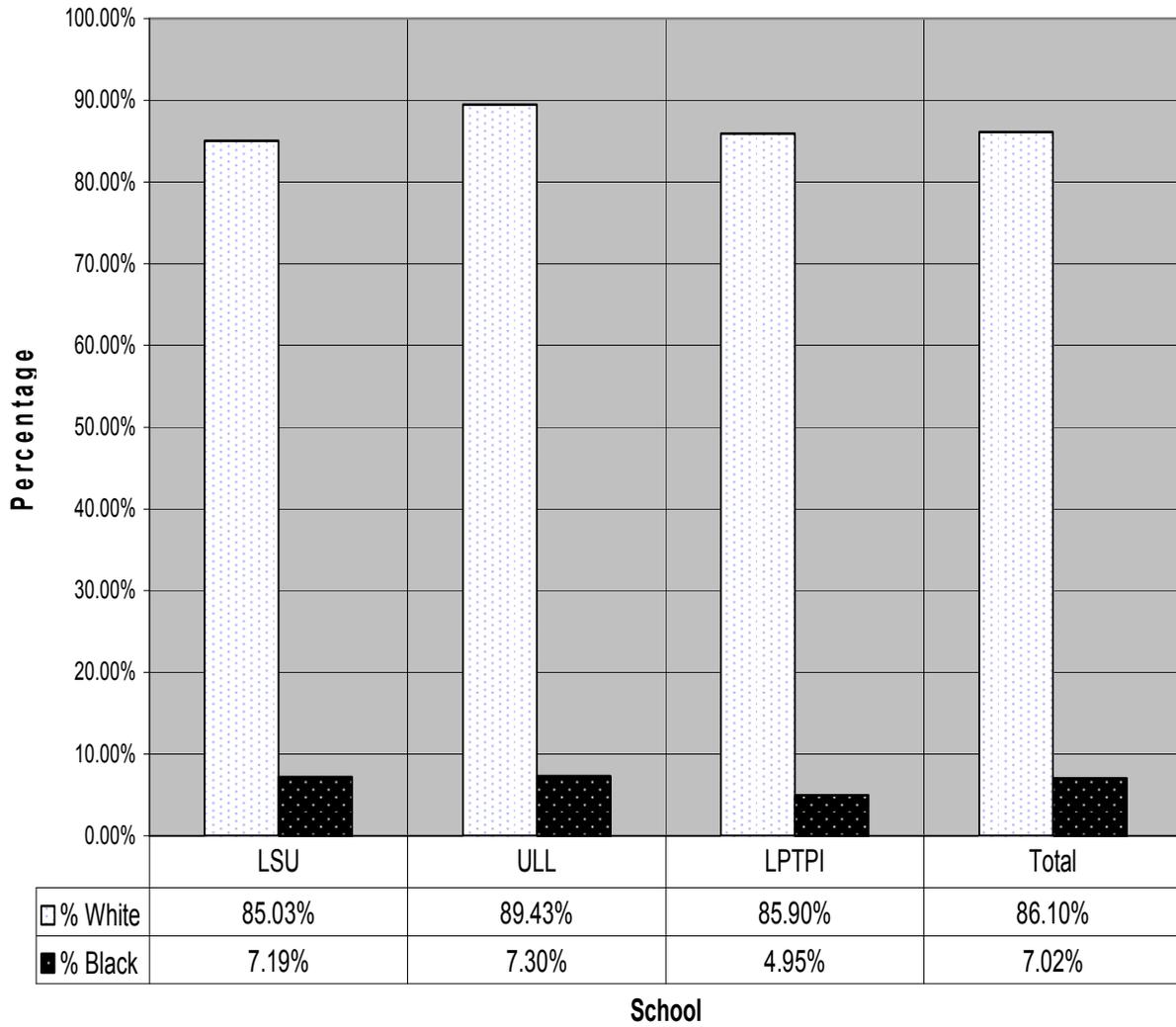


white and 103 (7.3%) were black. Of the 546, TOPS 2003 recipients, who attended a LPTPI, 469 (85.9%) were white and 27 (4.95%) were black.

From the TOPS 2003 database, 3550 white LSU students reported a mean parental income of \$103,532, with a standard deviation of \$97,619; 287 black LSU students reported a mean parental income of \$51,049, with a standard deviation of \$46,142. From the TOPS 2003 database, 1192 white ULL students reported a mean parental income of \$78,911, with a standard deviation of \$72,753; 89 black ULL students reported a mean

Table 10 Percentage White/Black TOPS 2003 Recipients (LSU, ULL, LPTPI)

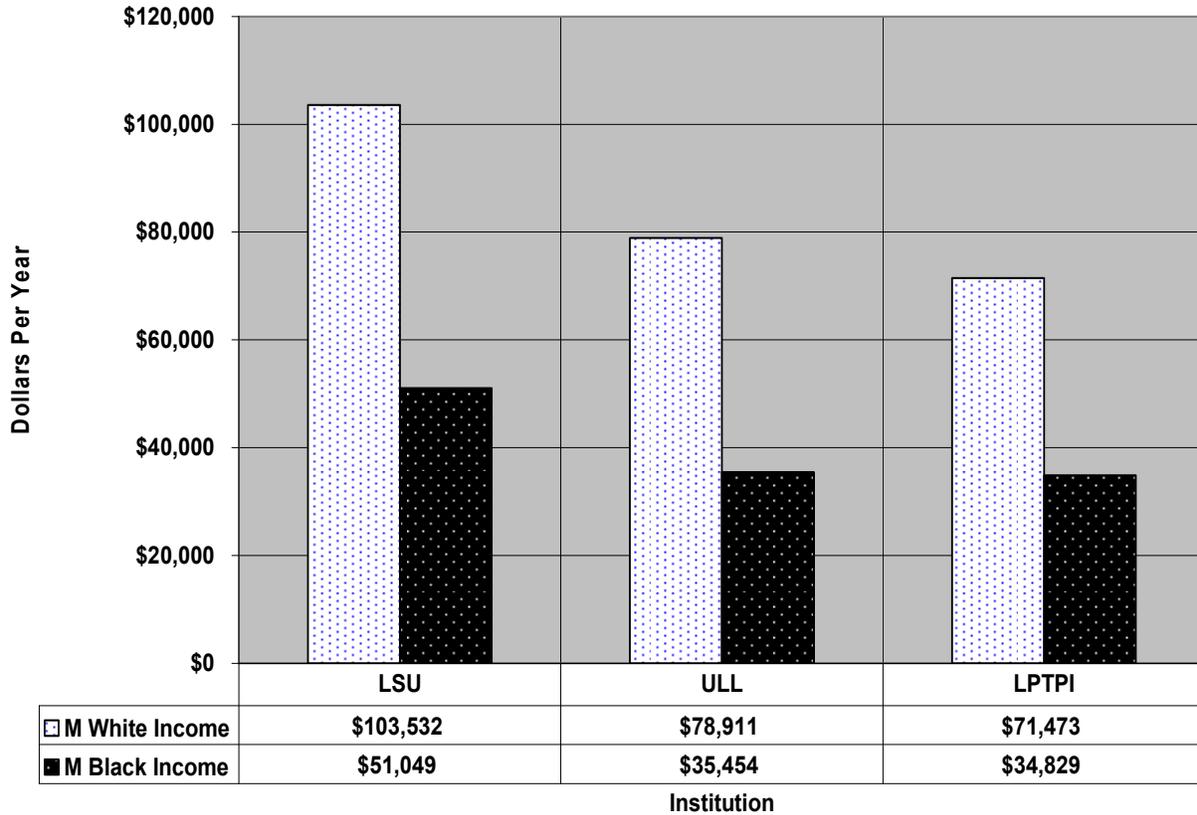
Percentage White/Black TOPS 2003 Recipients (LSU, ULL, LPTPI)



parental income of \$35,454, with a standard deviation of \$30,702. From the TOPS 2003 database, 437 white LPTPI students reported a mean parental income of \$71,473, with a standard deviation of \$69,775; 24 black LPTPI students reported a mean parental income of \$34,829, with a standard deviation of \$26,578.

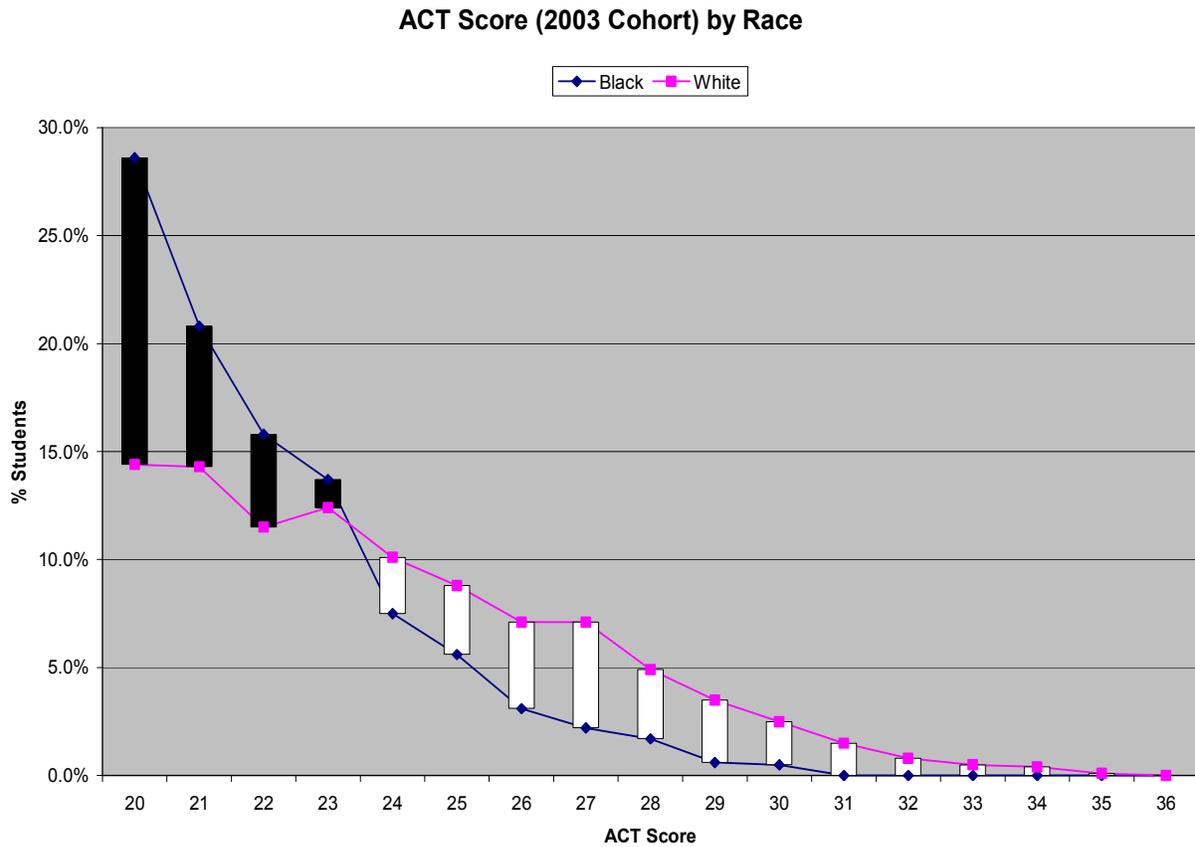
Table 11 Mean Income of White and Black 2003 TOPS Recipients (LSU, ULL, LPTPI)

Mean Income of White and Black 2003 TOPS Recipients (LSU, ULL, LPTPI)



TOPS is a merit based scholarship program that requires students to earn a minimum ACT score in order to qualify for an award. Similar to national trends, Louisiana 2003 TOPS recipients mirror Bowen & Bok's (1998) results; data from the Louisiana 2003 TOPS database indicate that a much lower percentage of African Americans, as compared to the percentage of whites, score high on the ACT, and a greater percentage of African Americans, as compared to whites, score low on the ACT. The following graph illustrates the data from the Louisiana 2003 TOPS database.

Table 12 ACT Score (2003 Cohort) by Race



LSU Students Who Have Funding = or > the COA

Analysis of the TOPS 2003 database showed that 1313 (32.19%) LSU TOPS 2003 recipients did not have funds equal to or greater than LSU's COA after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 1313 new LSU TOPS 2003 recipients who did not have funds equal to or greater than the COA, 1090 were white (29.02% of all white recipients) and 196 were black (66.2% of all black recipients).

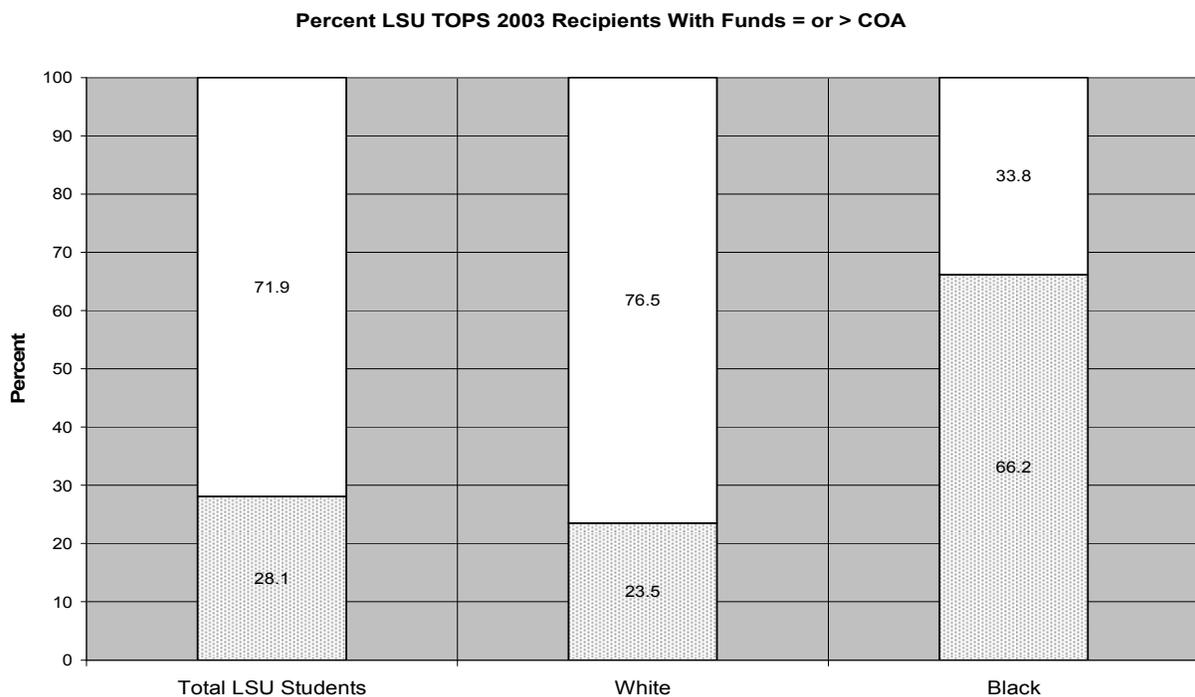
Analysis of the TOPS 2003 database showed that 2766 (67.81%) LSU TOPS 2003 students had funds equal to or greater

than LSU's COA after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 2766 new LSU TOPS 2003 recipients who had funds equal to or greater than the COA, 2666 were white (70.98% of all white recipients) and 100 were black (33.78% of all black recipients).

ULL Students Who Have Funding = or > the COA

Analysis of the TOPS 2003 database showed that 483 (38.2%) ULL TOPS 2003 recipients did not have funds equal to or greater than ULL's COA after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 483 new ULL TOPS 2003 recipients who did not have funds equal to or greater than the COA, 397 were white (34.9% of all white recipients) and 63 were black (72.4% of all black recipients).

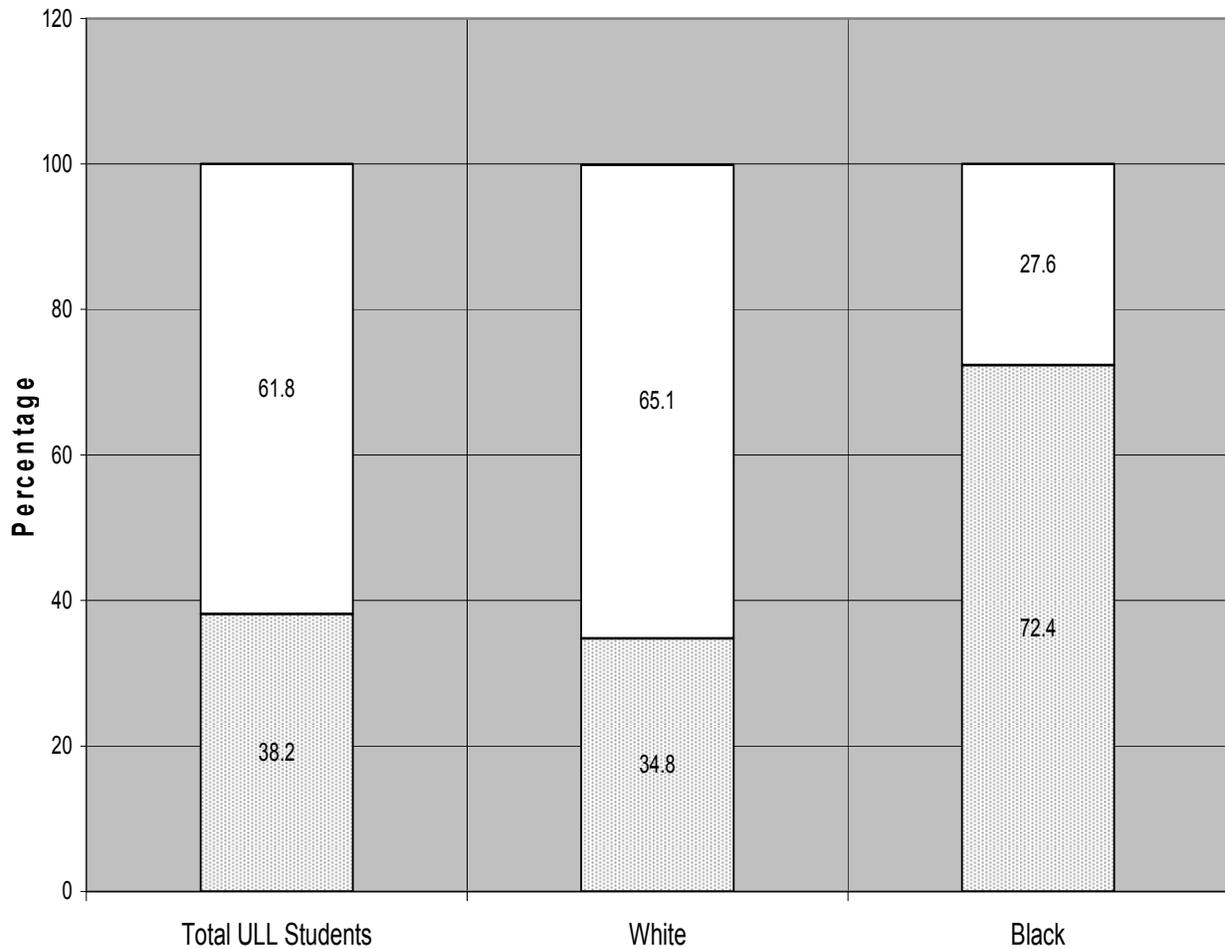
Table 13 Percent LSU TOPS 2003 Recipients with Funds = or > COA



Analysis of the TOPS 2003 database showed that 783 (61.8%) ULL TOPS 2003 students had funds equal to or greater than LSU's COA after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 783 ULL TOPS 2003 recipients who had funds equal to or greater than the COA, 742 were white (65.1% of all white recipients) and 24 were black (27.6% of all black recipients).

Table 14 Percent ULL TOPS 2003 Recipients with Funds = or > COA

Percent ULL TOPS 2003 Recipients With Funds = or > COA



LPTPI Students Who Have Funding = or > the COA

Analysis of the TOPS 2003 database showed that 204 (44.5%) LA 2-year postsecondary TOPS 2003 recipients did not have funds equal to or greater than the COA at the postsecondary institution, which they enrolled for the fall 2003 semester, after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 204 LA 2-year postsecondary TOPS 2003 recipients who did not have funds equal to or greater than the COA, 169 were white (41.8% of all white recipients) and 20 were black (80% of all black recipients).

Analysis of the TOPS 2003 database showed that 254 (55.5%) LA 2-year postsecondary TOPS 2003 recipients did not have funds equal to or greater than the COA at the postsecondary institution, which they enrolled for the fall 2003 semester, after taking into consideration students' TOPS awards, EFC, Pell Grants, FSEOGs, and LEAP grants. Of the 254 LA 2-year public postsecondary TOPS 2003 recipients who had funds equal to or greater than the COA, 235 were white (58.2% of all white recipients) and 5 were black (20% of all black recipients).

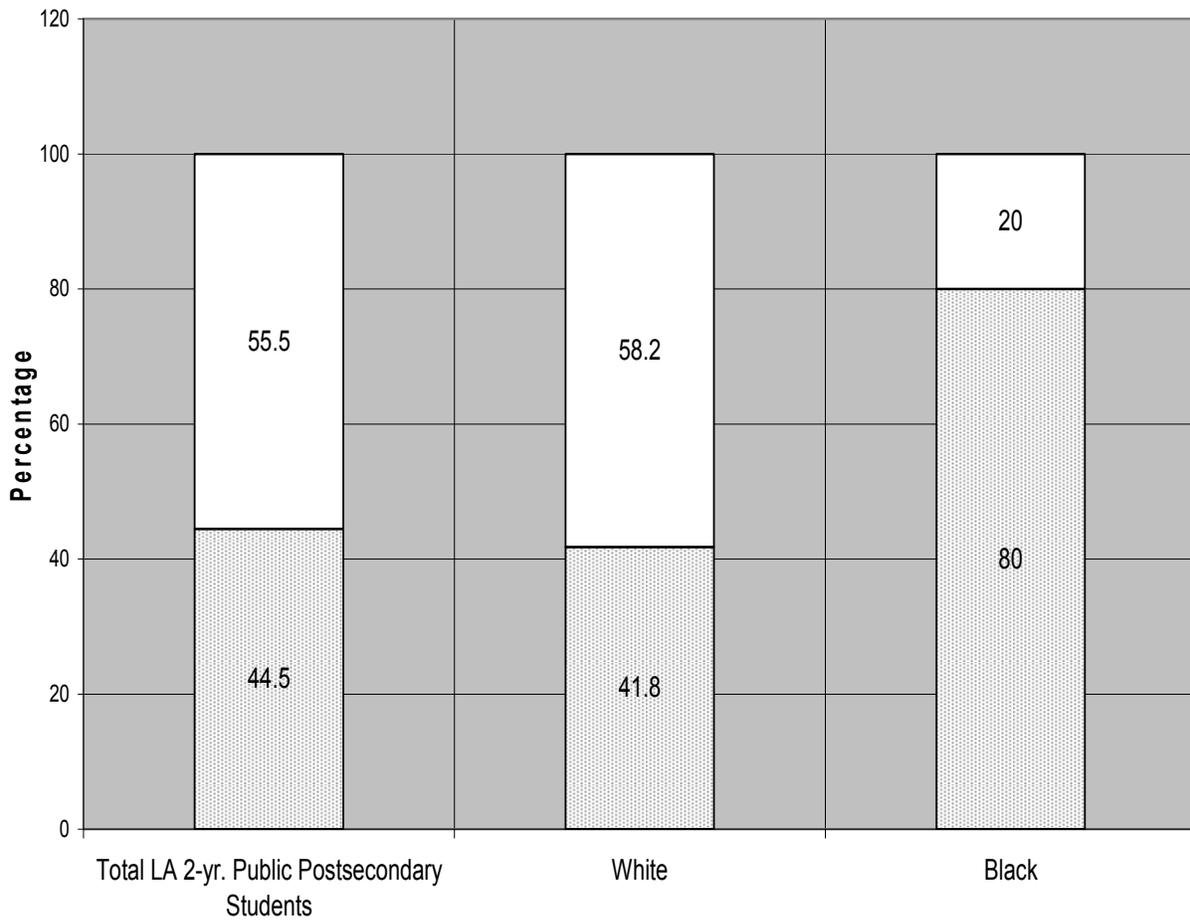
Logistic Regression Analysis

Logistic regression analysis was run to determine the effect of race/ethnicity, high school grade point average, ACT score, and parental income on a students ability to acquire funds equal to or greater than the cost of attendance (COA) at

Louisiana State University (LSU), the University of Louisiana at Lafayette (ULL), and Louisiana public two-year postsecondary institutions (LPTPI). The dependent variable was coded as 1 for students who had funds equal to or greater than the cost of attendance (COA) at LSU, ULL, or a LPTPI and 0 for students who did not have funds equal to or greater than the COA at LSU, ULL, or a LPTPI.

Table 15 Percent LA Public 2-yr Postsecondary Institution TOPS 2003 Recipients with Funds=or>COA

Percent LA Public 2-yr Postsecondary Institution TOPS 2003 Recipients With Funds = or > COA



Louisiana State University

Analysis of Louisiana State University (LSU) included 3691 cases, of which 2754 students had funds equal to or greater than the cost of attendance (COA) and 937 students did not have funds equal to or greater than the COA. An Omnibus Test of Model Coefficients was run to determine goodness of fit. The results of the Omnibus Test of Model Coefficients were Chi-square of 2266.866, 7df, and .0005 significant, which indicated that the model was better than a criterion model without independent variables. SPSS v.10 used Cox & Snell R Square (.459) and Nagelkerke R Square (.677) to develop a pseudo R2 statistic to indicated the amount of variation in the DV explained by the model. Table 16 is a chart of the regression table.

Table 16 Summary of Logistic Regression Analysis for Variables Predicting LSU 2003 TOPS Recipients Probability of having Funds Equal to or Greater Than the Cost of Attendance at LSU (N = 3691)

<u>Variables</u>	<u>Odds Ratio</u>	<u>Delta-p</u>	<u>Sig</u>
Race (W)	0.268	0.0005	*
High School GPA	1.095	0.059	
ACT Composite Score	1.042	0.038	*
Parental Income (G1)	1.246	0.193	
Parental Income (G2)	10.383	.0005	*
Parental Income (G3)	179.555	.0005	*
Parental Income (G4)	2564.140	.0005	*

University of Louisiana at Lafayette

Analysis of the University of Louisiana at Lafayette (ULL) included 1226 cases, of which 766 students had funds equal to or greater than the cost of attendance (COA) and 460 students did not have funds equal to or greater than the COA. An Omnibus Test of Model Coefficients was run to determine goodness of fit. The results of the Omnibus Test of Model Coefficients were Chi-square of 860.909, 7df, and .0005 significant, which indicated that the model was better than a criterion model without independent variables. SPSS v.10 used Cox & Snell R Square (.505) and Nagelkerke R Square (.688) to develop a pseudo R2 statistic to indicated the amount of variation in the DV explained by the model. Table 17 is a chart of the regression table.

Table 17 Summary of Logistic Regression Analysis for Variables Predicting ULL 2003 TOPS Recipients Probability of having Funds Equal to or Greater Than the Cost of Attendance at ULL (N = 1226)

Variables	Odds Ratio	Delta-p	Sig
Race (W)	1.269	.506	
High School GPA	0.927	.533	
ACT Composite Score	1.047	.204	
Parental Income (G1)	2.202	.14	
Parental Income (G2)	22.829	.0005	*
Parental Income (G3)	267.768	.0005	*
Parental Income (G4)	269,885	..0005	*

Louisiana Public Two-year Postsecondary Institutions

Analysis of Louisiana Public Two-year Postsecondary Institutions (LPTPI) included 405 cases, of which 239 students had funds equal to or greater than the cost of attendance (COA) and 166 students did not have funds equal to or greater than the COA. An Omnibus Test of Model Coefficients was run to determine goodness of fit. The results of the Omnibus Test of Model Coefficients were Chi-square of 304.345, 7df, and .0005 significant, which indicated that the model was better than a criterion model without independent variables. SPSS v.10 used Cox & Snell R Square (.528) and Nagelkerke R Square (.712) to develop a pseudo R² statistic to indicated the amount of variation in the DV explained by the model. Table 18 is a chart of the regression table.

Table 18 Summary of Logistic Regression Analysis for Variables Predicting LPTPIs 2003 TOPS Recipients Probability of having Funds Equal to or Greater Than the Cost of Attendance at LPTPIs (N = 1219)

<u>Variables</u>	<u>Odds Ratio</u>	<u>Delta-p</u>	<u>Sig</u>
Race (W)	1.602	0.579	
High School GPA	1.029	0.902	
ACT Composite Score	1.063	0.505	
Parental Income (G1)	2.208	0.237	
Parental Income (G2)	29.970	.0005	*
Parental Income (G3)	776.763	.0005	*
Parental Income (G4)	1021.819	.0005	*

CHAPTER FIVE: RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Results

From the Chapter IV analysis of the 2003 TOPS database, this research discovered that Louisiana's prime source of funding to help students minimize the cost of pursuing a postsecondary education at a Louisiana public postsecondary institution is TOPS. TOPS distributes the majority of its funds to student who come from Louisiana families who have the financial means to send their children to college without financial help from TOPS. TOPS minimizes the cost of a postsecondary education at Louisiana postsecondary institutions for students from Louisiana's middle and upper class; yet, TOPS does little to help students from families who have financial need. In particular, Louisiana's African American population receives less benefit from the TOPS program, as compared to the benefits received by Louisiana's white population. The discrepancy between the benefits received by African American's and whites is systemic, as TOPS relies too heavily on ACT test score performance to select the recipients of TOPS awards.

TOPS 2003 recipients were high school graduates who completed a rigorous secondary curriculum and scored in the top half of all Louisiana high school students on the ACT composite score. TOPS 2003 recipients were from families whose parental income was significantly higher than Louisiana's 2003-04 median

household income, as recorded by the US Census Bureau (2007), of \$36,603, as over 66% of TOPS 2003 recipients came from families with a parental income over \$50,000 annually; families who most likely had the funds to finance their children's postsecondary educations without state assistance from TOPS. The 2003 TOPS award distribution was disproportionately distributed to white students (78.5%), who according to the U.S. Census Bureau (2007) represented approximately 61% of Louisiana's population. Only 12.8% of 2003 TOPS award recipients were African American, a disproportionate share in a state where in 2003, 33% of Louisiana residents were African American.

In detail, this study found that TOPS recipients are graduates from a Louisiana public or private high school, complete 16.5 units of designated core college preparatory work with a minimum 2.5 grade point average, earn a minimum 20 score on the ACT composite or its SAT equivalent composite score, and enroll in a Louisiana public or private postsecondary institution in order to earn a TOPS award. The first level award is the TOPS Opportunity Award, which provides recipients with a dollar amount equal to tuition at a public postsecondary institution or an amount equal to a weighted average tuition of public degree granting schools for students who attend a Louisiana Association of Independent Colleges and Universities (LAICU) member postsecondary institution. LAICU members are

Centenary College, Louisiana College, Dillard University, Loyola University, New Orleans Baptist Theological Seminary, Our Lady of Holy Cross College, Tulane University, Xavier University, Our Lady of the Lake College, and Saint Joseph Seminary College (LOSFA). The second level award, for TOPS 2003 recipients who complete the required 16.5 units of designated core college preparatory work with a minimum 3.5 grade point average and an ACT composite score of 23 through 26, or its SAT equivalent composite score qualified for a TOPS Performance Award. The TOPS Performance Award which provides recipients with a dollar amount equal to tuition plus a \$400 stipend or a weighted average tuition of public degree granting schools for students who attend a LAICU member postsecondary institution and a \$400 stipend. The third level award, for TOPS 2003 recipients who complete the required 16.5 units of designated core college preparatory work with a minimum of 3.5 grade point average and an ACT composite score minimum of 27 or its SAT equivalent composite score qualified for a TOPS Honors Award. A TOPS Honors Award provides recipients with a dollar amount equal to tuition plus an \$800 stipend or a weighted average tuition of public degree granting schools for students who attend a LAICU member postsecondary institution and an \$800 stipend.

Of the 45,226 students who graduated from a Louisiana high school in 2003, according to the Louisiana Board of Regents

(2004), 33% (14,797) qualified for a TOPS scholarship. The 67% of 2003 high school graduates who did not qualify for a TOPS scholarship failed to do so because they did not meet the minimum ACT/SAT test score requirements and/or they failed to complete the 16.5 units of the required core curriculum (LBOR, 2004). Of the 2003 high school graduates who qualified for a TOPS award, 10% did not participate in the TOPS program, because they attended a postsecondary institution outside of Louisiana or they did not attend a qualified postsecondary institution (LBOR, 2004). Based upon the analysis of this study, TOPS 2003 recipients followed a state proscribed path for college preparatory: the 16.5 units of required core curriculum, with the expectation that students who completed the 16.5 units of required core curriculum would score a minimum ACT composite score of 20. In 2003, Louisiana's TOPS program required recipients to score the average ACT score of all Louisiana high school graduates who took the ACT test the prior year (2002); as such, TOPS 2003 recipients had to earn a minimum ACT score of 20. Unfortunately, many high school students who earned a 3.0 or higher grade point average, on a 4.0 scale, attended secondary schools of low academic standing; thus, these students were often left without state postsecondary funds to financially support their effort to continue their education at a Louisiana postsecondary institution.

In particular, African Americans feel the consequences of the ACT TOPS minimum score requirement. According to Bowen & Bok's (1998) results which showed that a much lower percentage of African Americans, as compared to the percentage of whites, score high on the ACT, and a greater percentage of African Americans, as compared to whites, score low on the ACT.

Results from the 2003 TOPS data show that Louisiana 2003 TOPS recipients, followed the national trend described by Bowen & Bok (1998), as a much lower percentage of African American 2003 TOPS recipients, as compared to the percentage of white 2003 TOPS recipients, scored high on the ACT and a much higher percentage of African American 2003 TOPS recipients, as compared to white 2003 TOPS recipients, scored low on the ACT. As such, a small percentage of Louisiana's African American population as compared the percentage of Louisiana's white population qualified for a 2003 TOPS award. Approximately 78.5% of TOPS 2003 recipients were white and 12.8% were African American, and 8.7% were members of a race other than African American or white, or they failed to list their race on the TOPS Scholarship Application.

Academic performance, as measured by students' grade point average and ACT/SAT test scores, placed 74% of 2003 Louisiana high school TOPS 2003 recipients into a TOPS Opportunity Award

category, 15% into a TOPS Performance Award category, and 11 % into a TOPS Honors Award category.

Of the TOPS 2003 recipients 14.62% were from families who reported a family income of less than \$20,000 per year, 19.26% were from families who reported a family income between \$20,000 and \$50,000 per year, 40.8% were from families who reported a family income between \$50,000 and \$100,000 per year, and 25.32% were from families who reported a family income greater than \$100,000 a year.

More TOPS 2003 recipients attended LSU than the combined total number of TOPS 2003 recipients from ULL and all LPTPIs and LSU TOPS 2003 recipients were predominantly white and they came from families with a higher average parental income than the average parental income of TOPS 2003 recipients from ULL or a LPTPI. TOPS 2003 recipients were primarily students who did not have financial need, as approximately only one-fifth of LSU TOPS 2003 recipients qualified for a Pell Grant, one-quarter of ULL TOPS 2003 recipients qualified for a Pell Grant, and one-third of LPTPI TOPS 2003 recipients qualified for a Pell Grant.

Specifically, Louisiana State University (LSU) had the largest number of TOPS 2003 recipients, 4323, followed by the University of Louisiana at Lafayette (ULL) with 1410 TOPS 2003 recipients and Louisiana public two-year postsecondary institutions (LPTPI) with 546 TOPS 2003 recipients.

LSU TOPS 2003 recipients came from families who had a higher parental income (M=\$97,935) and whose recipients received a greater percentage of TOPS Performance and Honors Awards (31.76%), as compared to the number of Opportunity Award recipients, than did TOPS 2003 recipients from ULL whose parental income equaled (M=\$75,506) and whose aggregate recipients received 23.83% TOPS Performance and Honors Awards, and TOPS 2003 recipients from a LPTPI whose parental income equaled (M=\$70,110) and whose aggregate recipients received 11.17% TOPS Performance and Honors Awards.

LSU Pell Grant recipients accounted for a small portion of LSU TOPS 2003 recipients (20.06%), as did ULL Pell Grant recipients who accounted for 26.24% of ULL TOPS 2003 recipients, and LPTPI TOPS 2003 recipients who accounted for 31.5% of LPTPI TOPS 2003 recipients. Most Pell Grant recipients, who qualified for TOPS, received TOPS 2003 Opportunity Awards; fewer Pell Grant recipients received TOPS 2003 Performance or Honors Awards, as compared to non-Pell Grant recipients. The table below describes the TOPS 2003 distribution to Pell Grant recipients and non-Pell Grant recipients at LSU, ULL, and LPTPIs.

TOPS 2003 recipients at LSU, ULL, and LPTPIs were overwhelmingly white. At LSU 85.03% of TOPS 2003 recipients were white and 7.19% were black, at ULL 89.43% were white and 7.30%

Table 19 Distribution of Pell Grant recipients and non-Pell Grant recipients at LSU, ULL, and LPTPIs

Opportunity		Performance		Honors		
	Pell Recipients	Non-Pell Recipients	Pell Recipients	Non-Pell Recipients	Pell Recipients	Non-Pell Recipients
LSU	74.04%	66.78%	14.65%	16.12%	11.30%	17.10%
ULL	79.19%	75.10%	15.14%	16.44%	5.68%	8.47%
LPTPI	88.37%	89.04%	11.05%	8.82%	0.58%	2.14%

were black, and at LPTPI 85.9% were white and 4.95% were black. In addition, white TOPS 2003 recipients came from families with a higher parental income than the parental income of black TOPS 2003 recipients. The average parental income of white LSU TOPS 2003 recipients was \$103,532, for white ULL TOPS 2003 recipients the average parental income was \$78,911, and for white LPTPI TOPS 2003 recipients the average parental income was \$71,473. In contrast, the average parental income of black LSU TOPS 2003 recipients was \$51,049, for black ULL TOPS 2003 recipients the average parental income was \$35,454, and for black LPTPI TOPS 2003 recipients the average parental income was \$34,829.

More than 50% of LSU, ULL, and LPTPI recipients had funds equal to or greater than the COA at LSU, ULL, or a LPTPI without the financial support provided by TOPS. In addition, TOPS 2003 recipients were predominately white.

Without TOPS awards, 34.03% LSU TOPS 2003 recipients would not have funds equal to or greater than the LSU COA, 31.29% of all white recipients and 71.96% of all black recipients. Of the TOPS 2003 recipients who did not have funds equal to or greater than the LSU COA without TOPS awards, 21.23% would have funds equal to or greater than LSU COA after accounting for TOPS awards, 28.9% of white recipients and 7.98% of black recipients.

Without TOPS awards, 45.81% ULL TOPS 2003 recipients would not have funds equal to or greater than the ULL COA, 42.84% of all white recipients and 74.71% of all black recipients. Of the TOPS 2003 recipients who did not have funds equal to or greater than the ULL COA without TOPS awards, 16.2% would have funds equal to or greater than ULL COA after accounting for TOPS awards, 18.03% of white recipients and 3% of black recipients.

Without TOPS awards, 49.34% LPTPI TOPS 2003 recipients would not have funds equal to or greater than the LPTPI COA, 46.53% of all white recipients and 88% of all black recipients. Of the TOPS 2003 recipients who did not have funds equal to or greater than the LPTPI COA without TOPS awards, 11.02% would have funds equal to or greater than LPTPI COA after accounting for TOPS awards, 10.1% of white recipients and 9% of black recipients.

Since the inception of TOPS, the cost of attendance (COA) for LSU, ULL, and LPTPIs have increased at a rate greater than

the rate of inflation. COA includes tuition and fees, which have increased at LSU, ULL, and LPTPIs at a rate greater than the rate of inflation; and living expenses, which have increased at a rate equal to the rate the rate of inflation. As such, tuition and academic fees are the variables that contribute to the escalating COA beyond the rate of inflation.

At LSU the tuition and fees for a student who attended LSU in 1998-99 was \$2841. By 2005-06, the tuition for a student who attended LSU was \$4419. The LSU tuition and fee increase between 1998-99 and 2005-06 represents a 55.54% increase, a 32.45% increase adjusted for inflation.

At ULL the tuition and fees for a student who attended ULL in 1998-99 was \$2382. By 2005-06, the tuition and fees for a student who attended ULL was \$3346. The ULL tuition and fee increase between 1998 and 2006 represents a 40.47% increase, a 17.52% increase adjusted for inflation.

At LPTPIs the tuition and fees for a student who attended a LPTPI in 1998-99 averaged \$1334. By 2005-06, the tuition and fees for a student who attended a LPTPI averaged \$2067. The LPTPI tuition and fee increase between 1998 and 2006 represents a 54.95% increase, a 32% increase adjusted for inflation.

Students at LSU and ULL who qualified for a Federal Supplemental Educational Opportunity Grant (FSEOG) received up to \$700 in academic year 2003-04 provided funds were available.

LTPI's did not participate in the FSEOG program. Each year there are a finite number of FSEOG funds available to students; as such, a student might not have received FSEOG funds even though he/she qualified for a FSEOG. FSEOG funding for Louisiana students has not changed significantly since the inception of TOPS.

Students at LSU who qualified for Leveraging Educational Assistance Partnership (LEAP) program funds received \$1000 in academic year 2003-04, provided funds were available. Students at ULL who qualified for (LEAP) funds received \$700 in academic year 2003-04, provided funds were available. LTPI's did not participate in the FSEOG program. Each year there are a finite number of LEAP funds available to students; as such, a student might not have received LEAP funds even though he/she qualified for a LEAP grant. LEAP funding for Louisiana students has not changed significantly since the inception of TOPS; for example, in 1998-99 Louisiana distributed approximately \$1.3 million to Louisiana students; in 2006, Louisiana distributed approximately \$1.5 million to Louisiana students.

For the 2007-08 academic year, Louisiana will implement the GO Grant Program to assist needy students with postsecondary expenses. The maximum amount of a GO Grant award is \$2000 per academic year, with a maximum \$10,000 total award. To be eligible for a GO Grant, a student must be a first-time freshmen

in 2007-08 academic year, a Louisiana resident who is receiving a Pell Grant and who has an educational cost gap that is greater than \$0.

Conclusion

In summary, Louisiana's prime source of funding to help students minimize the cost of pursuing a postsecondary education at a Louisiana public postsecondary institution is TOPS. TOPS distributes the majority of its funds to student who come from Louisiana families who have the financial means to send their children to college without financial help from TOPS. TOPS minimizes the cost of a postsecondary education at Louisiana postsecondary institutions for students from Louisiana's middle and upper class; yet, TOPS does little to help students from families who have financial need. In particular, Louisiana's African American population receives less benefit from the TOPS program, as compared to the benefits received by Louisiana's white population. The discrepancy between the benefits received by African American's and whites is systemic, as TOPS relies too heavily on ACT test score performance to select the recipients of TOPS awards.

Recommendation

Future research could explore inequities in Louisiana's financial aid postsecondary programs by conducting an analysis of the TOPS program for students other than the 2003 cohort of

TOPS recipients and for students from other Louisiana postsecondary institutions, in particular historically black institutions such as Southern University at Baton Rouge and Grambling University at Grambling. More research needs to examine Louisiana's use of the ACT or SAT standardized tests to determine postsecondary financial aid distribution and to examine the role that standardized tests play to perpetuate the current socioeconomic class structure. In addition, future research could examine the contribution to postsecondary access that new financial aid programs, such as Louisiana's GO Grant, make to low-income and minority students.

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VITA

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